REPORT RESUMES

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FEASIBILITY STUDY REGARDING THE ESTABLISHMENT OF AN EDUCATIONAL MEDIA RESEARCH INFORMATION SERVICE.

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EXPLORATORY SYSTEMS TO CLASSIFY INFORMATION ON RESEARCH IN EDUCATIONAL MEDIA AND COMMUNICATION WERE DEVELOPED FROM--(1) A STUDY OF SOURCES IN EDUCATIONAL AND OTHER LITERATURE, (2) CONFERENCES WITH RESEARCHERS AND SPECIALISTS IN NEW MEDIA, AND (3) 85 QUESTIONNAIRES RETURNED FROM NEW MEDIA INFORMATION USERS. RECOMMENDATIONS ARE PROVIDED TO ORGANIZE A MEDIA RESEARCH INFORMATION SERVICE WITHIN THE U.S. OFFICE OF EDUCATION. (JM)

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FEASIBILITY STUDY

REGARDING THE ESTABLISHMENT OF AN

EDUCATIONAL MEDIA RESEARCH INFORMATION SERVICE

The study herein was performed pursuant to a contract with the United States Office of Education, Department of Health, Education, and Welfare (SAE - 8328)

Prepared by

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and

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School of Library Service
Columbia University
New York
1960

LETTER OF TRANSMITTAL

Dr. Roy M. Hall,
Assistant Commissioner of Education,
Division of Statistics and Research Services,
U.S. Office of Education,
Health, Education, and Welfare Building,
Washington 25, D. C.

Dear Sir:

We have the honor to transmit to you our report, "Feasibility Study Regarding the Establishment of an Educational Media Research Information Service", prepared under contract with the U. S. Office of Education, and Columbia University (SAE - 8328).

Sincerely yours,

Maurice F. Tauber

Maurice F. Tauber,
Professor of Library Service,
Columbia University.

Oliver L. Lilley

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Associate Professor of Library Service,
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May 30, 1960

INTRODUCTION

The increase in research in areas of educational media—print, television, radio, films, pictures of all kinds, models, and other items included in the field of audio-visual materials and media of communication—has been accompanied by a growing problem of effective dissemination of findings from research to the wide range of persons interested in the results. The many sources of publications and information, as well as the categories of individuals concerned with this body of research, are so varied that it has become relatively difficult to identify and locate material promptly and satisfactorily. The problem became more pronounced to the administrative officers of the Educational Media Branch of the U. S. Office of Education who were faced with the problem of evaluating research proposals being submitted for grants under Title VII, Part A, of the National Defense Education Act. As funds available for research in educational media expanded, the matter of an adequate and prompt information service on past and current research suggested the need for a systematic study of the problem.

The consultants accepted the assignment to study this problem in terms of: (a) availability of current bibliographical sources, indexes, abstracts, journals, or other printed works; (b) the activities of personnel in the field in their efforts to gain information concerning research; (c) the current systems of classification employed to organize research information; and (d) the systems of subject headings that might be applied to the material. On the basis of these studies, it was ex-

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pected that a proposed program for an information service in media research might be evolved. The proposal of study is included in Appendix A.

The consultants approached the problem in several ways. The testing of current sources of information was done through the identification and locating of a sampling of research studies included in a summary of research prepared for the Encyclopedia of Educational Research by William H. Allen, editor of the Audio-Visual Communication Review. A questionnaire (Appendix B) was used to seek information from a selected group of persons involved in various aspects of educational media. The classification was developed on the basis of a detailed study of the organization of the research studies in various bibliographies, files of research study, abstracting services, and standard systems of arrangement. The list of subject headings was developed in a similar way, with special attention given to existing subject heading lists. In the total approach to the problem, the consultants visited installations where files of research studies were being accumulated, and carried on correspondence with many individuals in the field.

The examination of the bibliographical and other sources provided the consultants with a background for developing the questionnaire that was used to gain a valid sample of informed opinion.

Prior to the compilation of the questionnaire in final form, the consultants attended a meeting of 18 evaluators for research projects presented to the Educational Media Branch, U. S. Office of Education, in Washington, October 9, 1959. At this meeting the consultants were:

(1) able to meet with the evaluators as a group; (2) attend sessions in which proposals for research were discussed; (3) discuss matters relating to the questionnaire with the group and with individual members; and (4) examine actual studies, for the purpose of isolating the nature of the terminology employed in the presentation of projects to the Educational Media Branch. It was established also at this meeting that the evaluators would be willing to test the original questionnaire and to offer suggestions for simplification or improvement. In the course of the next few weeks, nearly all of the evaluators returned the questionnaires with suggestions. In addition, the consultants had the counsel of Dr. Alice I. Bryan, of the School of Library Service, Columbia University, in adjusting certain problems of content and format.

In October, 1959, the consultants met with Mr. Robert Lefranc, of the Ecole Supérieure Audio-Visuel de St. Cloud (France), and Drs. Paul W. Witt and Arthur Foshay, of Teachers College, Columbia University. All of these men are interested directly in the channeling of information about research in educational media to the individuals who need to know about developments, and they discussed problems in this area with the consultants.

Dr. Tauber spent a day, November 13, 1959, discussing questions of research with Dr. Leon Arons, Director of Research of the TV Bureau of Advertising, New York City.

On November 16-17, 1959, the consultants visited the Division of Academic Research and Services, Pennsylvania State University, University Park, Pennsylvania, and met with Dr. C. R. Carpenter, Director, and Drs.

Frank R. Hartman and Leslie Greenhill, and Mr. J. D. Hundleby, of the staff; also with Dr. Richard M. Colwell of the teaching staff of the University, and with Dr. V. Vand of the Groth Institute. The consultants examined the tentative classification scheme the Division is constructing, and had profitable discussions with all members of the group on various aspects of the problem.

In addition, letters were written to a number of individuals who are known to have an interest in research in the field. All of these visits, and interviews, as well as correspondence, helped to provide insight into some of the problems of research in the various areas of educational media, and to point up matters of detail relating to the questionnaire.

As a result of this preliminary work, a revised questionnaire was prepared, and was circulated on a testing basis. As a result of criticisms, the form was further revised for final distribution.

In addition to the visits noted above, the consultants, either together or singly, inspected information installations at Picatinny Arsenal, in New Jersey, which maintains a system of coordinate indexing and engages in bibliographical work for the staff of researchers; attended the annual conference in Cincinnati of the National Educational Association's Division of Audio-Visual Instruction; visited audio-visual establishments in Southern Illinois University and the University of Illinois; and conferred with representatives of the National Project on Agricultural Communications at Michigan State University. These activities were useful in the assessment of the present activities in respect to disseminating information to personnel in the field.

On May 2, 1960, a meeting of the consultants with several representatives from the field proved profitable in exploring the tentative proposal for an Information Service. Among the participants in this meeting were Dr. Leon Arons, of the TV Bureau of Advertising; Miss Clara Deering and Mr. Edward S. Moffat, of Teachers College Library, Columbia University; Dr. Carolyn Guss and Prof. Margaret I. Rufsvold, of Indiana University; Dr. Frank R. Hartman, Pennsylvania State University; Dr. Anna L. Hyer, National Educational Association, Division of Audio-Visual Instruction; and Dr. Paul W. Witt, of Teachers College, Columbia University.

The consultants are grateful to many groups and individuals for their assistance. To the evaluators of the Educational Media Branch, U. S. Office of Education, they owe a special vote of thanks for their help in modifying and testing the questionnaire, and to the many educators, educational media researchers, librarians, psychologists, communication experts, and institutional and organizational personnel, they express gratitude for enlightenment on many points related to the study and allied fields. The staff members of the Educational Media Branch were completely cooperative. Personnel of the School of Library Service, Teachers College, the Libraries, and the Bureau of Applied Social Research, all of Columbia University, also were helpful in their suggestions.

The individuals who helped with the study are included in an appendix ~~to this study. Each one of them assisted in some aspect of the study,~~ and the work could not have been completed without their guidance.

Special acknowledgement should be made of the specific aid of Dr. Robert D. Leigh, then Dean of the School of Library Service, Columbia University, for making arrangements for the consultants to be relieved of some of their work in the School in order to work on the study, and to Mr. Thomas W. L. Yersley, Executive Secretary, Office of Projects and Grants, Columbia University, who assisted the consultants in the various matters of personnel, supplies, reporting, and other activities associated with the project. Gratitude is expressed to Dean Jack Dalton, of the School of Library Service, for his encouragement and support of the project, and for his readiness to assist on any problems as they developed.

Dr. Mortimer Taube, of Documentation, Inc., Washington, D. C., and Allen Kent, of the Documentation Center, Western Reserve University, kindly examined the exploratory classification and made useful comments concerning it.

In addition to the groups and individuals mentioned above, note should be made of the aid given the consultants by several students in the School of Library Service, Columbia University. These included Mrs. Avis Duckworth, Mrs. Ilse E. Kagan, Miss Haselle Nelson, and Mrs. Janet Meinhold. To the personnel of the School of Library Service Office, special gratitude must be expressed for the many acts of assistance given. Note should be made specifically of Mrs. Mary-Ellen Herman, Mrs. Arlene Olney, Miss Ruth Conway, Miss Shirley Barton, and Werner Polack. Secretarial assistants who participated effectively in the many activities associated with the project included Mrs. Virginia L. Denny, Miss Rachel Hecht, and Miss Mildred Lenhardt.

I.

THE PROBLEM OF RESEARCH IN EDUCATIONAL MEDIA

What are the needs of the many categories of individuals in education and other fields in respect to research in educational media? The staff of evaluators of the United States Office of Education, for example, need to have a quick grasp of past research or of studies in progress. While it may be assumed that a specialist in a particular field may be aware of research completed in it, he is not always cognizant of the studies in progress. More serious is the inability of specialists and others to keep abreast of the variety of studies being promoted by various educational institutions, governmental organizations, or commercial firms.

The feedback of research to personnel who need to know is apparently the basic problem in educational media as it is in all fields of objective study. The fact that millions of dollars are spent annually for research in educational television or in other educational media suggests that only through a systematic program can research be recorded and organized and applied to the practice of teaching. Not only are the project evaluators and the staff of the United States Office of Education directly involved in past and current research, but so too are the vast numbers of teachers in the field, superintendents and principals, audio-visual directors in educational units, professors of educational methods, directors of audio-visual research in universities, advanced students in audio-visual areas, specialists in audio-visual research, school librarians, librarians of teacher colleges, other librarians, military and naval training officers, the personnel in educational departments of commercial and manufacturing firms, directors of communication outlets, schools, departments and colleges of communication arts, and other personnel related to such fields as English language and literature, foreign languages and literature, journalism, public opinion, public administration, librarianship, engineering, electronics and data processing, industrial arts, home economics, the medical sciences, the agricultural sciences, music, and art and architecture. Other fields are just as involved, but the above categories suggest the areas in which there are programs and developments that have become more significant during the last decade. The advent of television, of course, has been one of the most striking developments in a wide variety of fields of educational activity.

What do these developments mean in terms of research in educational media? Is the research systematic? What agencies are interested in furthering research in educational media? How do they cross lines? What are the most satisfactory, prompt, and economical devices for disseminating information of research to the personnel interested? These questions are discussed in this report on a feasibility study for an information service on research in educational media. There is no intention of evaluating research in educational media in this report, since this was regarded as outside of the limits of the study. Needless to say, perhaps, is that this is a basic question for those in the field to be concerned with as a program for systematic research is developed. It has been claimed that research may flourish best and most originally if it is not compressed in a particular pattern, or restrained in any way by governmental control. This may be a defensible argument, but the consultants have been concerned about the provincial attitude of the various individuals, groups, and agencies that have been involved in the amorphous field that has been described by the phrase "educational media". Perhaps the amorphousness, lack of coordination in research, and failure to isolate principles in the field are directly related to the unsystematic condition of the field in its bibliographical aspects and information service.

Although the consultants are not evaluating research as such, they would be remiss if they neglected to call attention to critical observations of some respondents to the questionnaire. In general, these comments suggested that research in educational media—and because of its current impact, television has borne a larger brunt of criticism than other media—is unnecessarily ill-conceived, duplicative and replicative, and not productive of principles to guide teachers, principals, supervisors, and other practitioners in the field of education. One respondent wrote as follows:

> We believe that the rapid growth and expansion in the field of mass media, especially as it pertains to education, has resulted in too many mediocre research studies, often by persons not too competent, and very often repeating work that has been done elsewhere simply because of the lack of a central, co-ordinating clearing house. Then, too, too much of the present research seems to be a "pirating" or "re-hashing" of older research, whereas what is actually needed is basic research into real learning theory and its inter-relation to educational processes.

This statement may exaggerate the weaknesses of research in the field, but it pinpoints the problem in a direct way. What is the relation of educational media to the whole field of communication? What is the relation of educational media research to the psychology of learning? What is the relation of educational media research to the total field of education?

These are important questions that are also beyond the limits of the present study.[1] However, in the development of a classification system of the field, the consultants have attempted to bring in the related areas of interest. In the definition of the scope of an information service in a later section of this report, the problem of relationship to communication and education generally is considered.

The graphic representation of an information service is shown in Figure 1. The important aspects of this chart are that there are two major functions in regard to an information service on research in educational media to fulfill the needs of the United States Office of Education and the field of education generally. These are (1) a system to assist the evaluators and the United States Office of Education staff to appraise a particular request for support of a study within the framework of previous and current studies, and (2) a system to provide prompt service to Office staff and to practitioners who need information.

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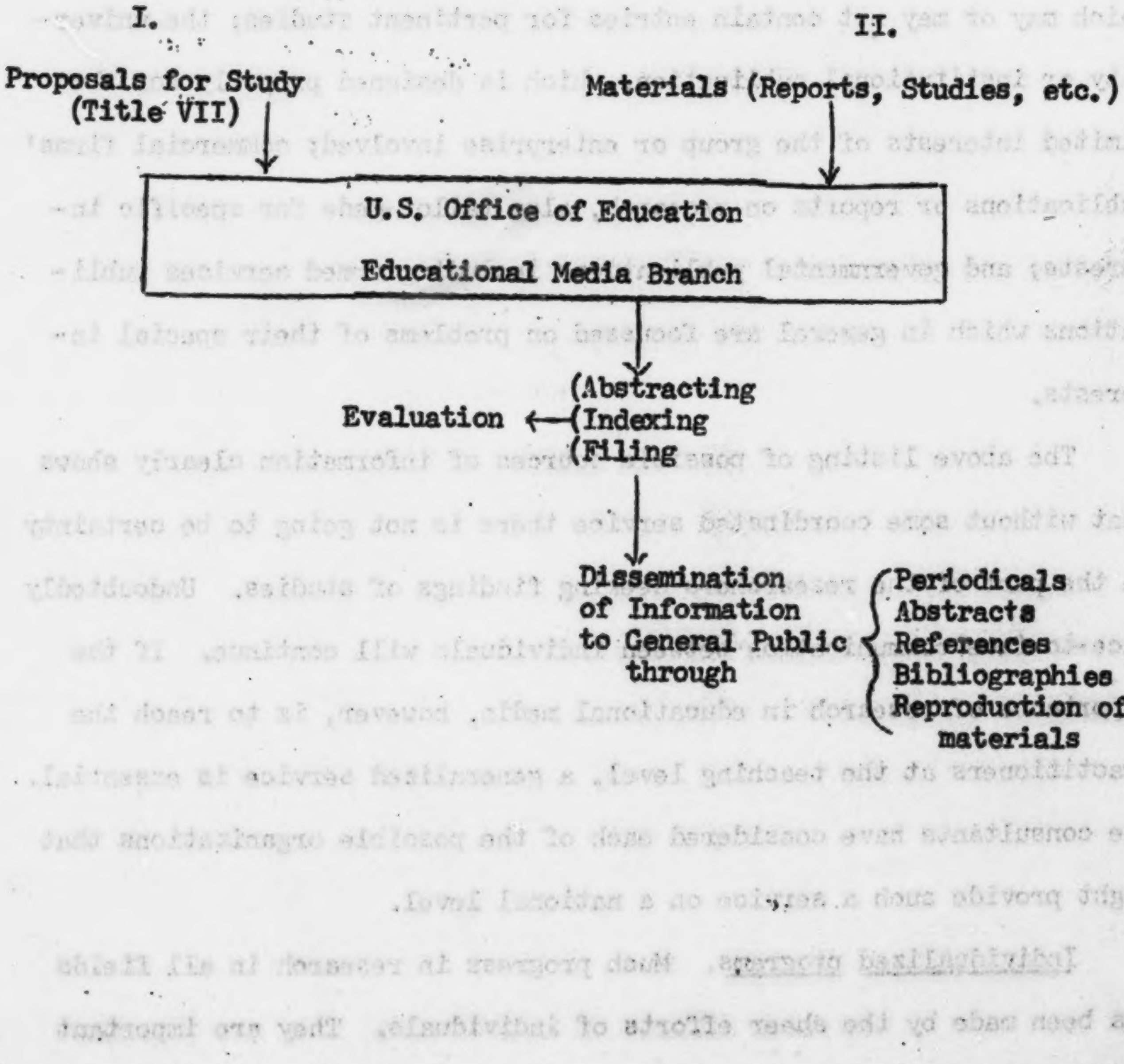
[1] See New Teaching Aids for the American Classroom: A Symposium on the State of Research in Instructional Television and Tutorial Machines, Held 13 and 14 November, 1959. Stamford: The Institute for Communication Research, 1960.

Figure 1

Flow Chart of Functions of Information Service

Educational Media Research


I.
II.
Proposals for Study (Title VII)
Materials (Reports, Studies, etc.)
U.S. Office of Education
Educational Media Branch
Abstracting
Indexing
Filing
Evaluation
Dissemination of Information to General Public through
Periodicals
Abstracts
References
Bibliographies
Reproduction of materials

POSSIBILITIES FOR AN INFORMATION SERVICE

In the review of the problem of disseminating information on research in educational media, it became clear early that there were a variety of viewpoints and approaches existing in the field. Obvious ones include the individual expert, designing his own system and developing a program, or summarizing research; the association journal, including a selective group of titles of completed research; the commercial index, which may or may not contain entries for pertinent studies; the university or institutional publication, which is designed properly for the limited interests of the group or enterprise involved; commercial firms' publications or reports on research, also tailor-made for specific interests; and governmental publications including armed services publications which in general are focussed on problems of their special interests.

The above listing of possible sources of information clearly shows that without some coordinated service there is not going to be certainty on the part of the researchers seeking findings of studies. Undoubtedly face-to-face communication between individuals will continue. If the importance of research in educational media, however, is to reach the practitioners at the teaching level, a generalized service is essential. The consultants have considered each of the possible organizations that might provide such a service on a national level.

Individualized programs. Much progress in research in all fields has been made by the sheer efforts of individuals. They are important to the educational world, and such workers should not be obstructed in their efforts. However, in educational media, as in other burgeoning fields, it is no longer possible to consider that the individual entrepreneur is able to provide a continuing and comprehensive approach to the problem at hand. The consultants do not believe that an extension of any individual program, even if subsidized by foundations or the government, is an answer to the type of service needed. This does not suggest that such surveys of research in this field, as prepared by Allen, Kumata, Hoban and Van Ormer, Molstad, and others should not be encouraged, and when fitted into the research program in educational media, given support when necessary.

Association journal. The evidence from the questionnaire, as well as the survey of the sampling of studies, revealed the importance of the association journal as a source of information on research. The Audio-Visual Communication Review, Psychological Abstracts, the Journal of Communication, and many other journals are considered in the previous section. Undoubtedly, the publications of the National Education Association's Division of Audio-Visual Instruction are primary aids to the profession of education. It is not the purpose of the consultants to suggest that present sources in the journal field be restricted. As a matter of fact, the consultants believe that the Audio-Visual Communication Review might be developed to include wider coverage, more frequent publication, and greater distribution. Again, however, it would appear to the consultants that material could be fed to this journal from a more general source.

Commercial indexes. The failure of indexes to provide the comprehensive kind of help necessary to the educational field was clearly evident in the evaluation of these sources by a sampling of titles. Moreover, it was learned that the indexes were so selected, usually on a basis that is not understood by the scholar, but may be perfectly clear to a firm in business to make money. Finally, it was discovered that the indexes have been inadequate in identifying the extent of the studies on a subject basis. In terms of what indexes do and do not do, the consultants are certain the further support of these sources would not produce either in content or coverage the type of service necessary.

University or institutional publications. The surveyors had the opportunity to examine various publications issued by departments of universities, as well as those prepared in units of institutions and organizations. Since these are generally developed in terms of special interests, it appears to the consultants that they could not provide the continuous nor comprehensive content required for a national service.

Commercial firms' publications. The literature of educational media abounds in publications issued by manufacturers, industrial organizations, and business organizations. These are subject to immediate change, are unsystematic in their interests, and represent such specialized points of view that they must be written off as a possible source for a coordinated service. Their materials, however, might well be useful to a centralized service.

Commercial documentation service. At the present time there are a number of commercial organizations which provide documentation services. It is possible that the Service might want to employ such an agency for advice on developing the classification and subject heading systems, but it does not appear to the consultants that an agency of this kind would be qualified to provide the continuing and coördinated activities required for this Service.

Governmental program. Up to this point, the consultants have tried to consider possible non-governmental agencies that might do the thorough, extensive, and prompt work necessary for an information service in educational media research. At this point, attention may be turned to the possibility of a governmental unit.

It appears to the consultants that a feasible program would come from the development of a service within the government. Specifically, they regard the Educational Media Branch of the United States Office of Education as the agency to handle this service. The reasoning for this conclusion comes out of the examination of the activities and sources described above. The Educational Media Branch would bring the following strengths to the kind of service needed:

(1) It would provide an internal control of proposals that come before the Branch under the National Educational Defense Act.

(2) It would not be hampered in any way by the special interests of an individual, a commercial firm, commercial index, association, university or other institution.

(3) It would be in a position to work independently with all of the above agencies.

(4) It would be in a position to assist in the development of a comprehensive service that would include areas in the communication arts and education generally.

(5) It would provide a basis for assessment of the field of educational media research which could lead to more coordination in the total program of research.

(6) It would be in a position to work closely with other governmental programs concerned with research information, such as the Library Services Branch of the United States Office of Education, the Library of Congress, the National Library of Medicine, and several units of the Armed Services.

The consultants are cognizant of the question that might be raised concerning placing another service under governmental control and supervision. They discount this question in the light of the present lack of a systematic program in the dissemination of information on research in the educational media. It would appear at this point that a non-governmental subsidized service, even if the service developed were created anew without the restraint of a existing pattern of specialization, could not have the coordination of advantages outlined above.

This conclusion in regard to a Federal service should be related to the steps that might be taken in the development of a service to all education. A comprehensive research information service covering the entire field of education may be desirable, but it is likely that a more practical program would be, first, to establish a media research information service and, then, expand it into a comprehensive service later. Also, in this connection, it should be observed that although there are common administrative problems among programs of research information, bibliographical control, and general information service on practices, it would be undesirable to combine or interrelate these in the program as proposed. Correlation of these three services may be desirable in the future.

FACTORS TO BE CONSIDERED IN A COMPREHENSIVE AND COORDINATED SERVICE

A comprehensive and coordinated service on research in and information on educational media would include the following interests:

1. Inclusion of current journals in educational media in established indexing services, such as the Education Index.
2. Encouragement of the development of a coordinated series of textbooks and monographs in the various areas of educational media, in order to synthesize present knowledge, isolate principles and guidelines, and prevent costly and unnecessary duplication in research.
3. Consolidation of various isolated services in the country that are useful in themselves, but could be coordinated into a more effective service by a cooperative project located at the United States Office of Education, Educational Media Branch.
4. Development of a systematic approach to abstracting of studies in the field so that researchers, students, faculty members, practitioners, and others could locate materials comprehensively and adequately to meet their needs. Abstracting could be done by contract.

5. Dissemination of information at the United States Office of Education through a journal of research including studies completed, studies in progress, and areas in which research is necessary.

6. Encouragement of inclusion of results of research in educational media in comprehensive summary articles.

7. Encouragement of the development of standards in the various audio-visual devices.

8. Supporting the production of reports outlining in detail the objectives, organization, staff facilities, operation, financing, services, effectiveness, and programs of all educational media centers in the United States.

9. Encourage the coordination of research in educational media on an international basis, including reports on research and activities in all countries of the world.

10. Encourage the compilation of directories of informational services in educational media in the United States and abroad.

11. Participating in the identification of sources of supply of apparatus of educational media, examined through experimental units associated with the service.

IMMEDIATE COURSE OF ACTION

The total service as envisaged in the above enumeration would be developed gradually. The following course of action appears to be feasible and is recommended:

1. Necessary action should be taken to establish an educational media research information service in the Office of Education, under the Media Branch. At such time as a comprehensive research information program is undertaken by the Office, the media system should be integrated into the larger system.

2. During the interim period between the present, and the time when the system is ready to begin operation, one or more contracts should be negotiated with some existing journal for the purposes of abstracting and reporting on educational media research.

3. The media research system should be based upon a comprehensive media classification system, even though the initial classification and dissemination will be concerned with only those studies dealing with the new educational media, as defined in Title VII, Public Law 85-864.

4. Personnel for the media research information service, in its initial stages should be provided probably including; unit manager, classifier, editor, one secretary, and two clerks.

5. Abstracting should be done by contract.

6. Investigation should be undertaken of the following:

   A. The possibility of acquisition, storage and cataloging of completed research reports by the Department of Health, Education, and Welfare Library.

   B. Definite establishment of the research classification system to be used, following the submittal of the final report of B-COA.

   C. Advantages and limitations of alternative systems for this purpose.

   D. The need for and characteristics of a periodical to report abstracted information from the studies cataloged.

   E. Plans for a comprehensive educational research information service within the Office of Education.

   F. The relationship of research information functions to other program activities of the Dissemination and Services Section.

PROPOSED ORGANIZATION

The proposed organization of a "Media Research Information Service" is presented below in tentative form. It is the judgment of the consultants that this Service should be limited at present to the field of media research, rather than trying to command the whole field of research in education and the communication arts. This is recommended because it would appear that an effort to encompass the whole body of research in education and the communication arts at this time would present so many difficulties in developing the Service, that the success of the operation might well be defeated. This does not mean that the Service should neglect individual studies in the fields of psychology, advertising, sociology, public opinion, and other related areas when these studies contribute specifically to the problem of applying research in educational media to the practice of education. But no attempt should be made at the outset to provide thorough coverage of all research in these areas that may have educational implications.

Therefore, it is the recommendation of the consultants that the "Media Research Information Service" be considered as the first of two steps leading toward a coordinated information service that in time will embrace all educational research, and research in other disciplines that have implications for educational theory and practice.

The organization for the "Media Research Information Service", the first step mentioned above, will require a budget to cover: (1) personnel; (2) quarters and equipment; (3) supplies, and other miscellaneous expenses of operation, including printing, distribution of publications, and dissemination of information.

Personnel

It is proposed that at the outset the Service would include personnel comprised of a unit manager, a technical classifier-indexer, an editorial assistant, a secretarial assistant, and two clerks. (See Figure 2). On the basis of present Federal salary scales, the minimum grades of the individuals might be as follows:

Unit Manager	Grade 13	$9,890
Classifier-Indexer	Grade 11	7,030
Editorial Assistant	Grade 10	6,505
Secretarial Assistant	Grade 5	4,040
Clerks (2)	Grade 4	7,510
		$34,975 (Total)

The duties, as developed in tentative form, might be listed as follows:

Unit Manager. To be responsible for the total operation of the information service; to develop the various parts of the service, including a periodical, abstract catalog and index, and a file of reports, studies, and other materials related to the service; to maintain relations with the various institutions, organizations, associations, agencies, and individuals engaged in research in educational media; to introduce new equipment or approaches as they develop, including mechanization where applicable; to assist in the development of a program of information on research and studies in progress to the Educational Media Branch; to develop a program, if possible, of decentralized abstracting, patterned after that of Chemical Abstracts or similar projects; to administer the agency of information under the supervision of the Director of the Educational Media Branch.

This staff member should be trained and experienced in the fields of librarianship, education and research methodology; he should have experience in editorial work, abstracting, and indexing; he should have three years experience as an administrator, and be able to work on a high level of consultation.

Classifier-Indexer. To be responsible for the office control of proposals submitted to the Educational Media Branch for grants under the National Education Defense Act; to index them as to their content for the purpose of identifying them for the evaluating staff of the Educational Media Branch; to index completed reports, for inclusion in a periodical publication for the benefit of educational profession at large; to develop, modify, and keep current classifications and subject headings appropriate for the identification and categorization of studies and reports; to assist in supplying information to members of the profession of education who correspond on studies.

Experience and training required in librarianship and education.

Editorial Assistant. To be responsible under supervision of the Unit Manager for editorial work on periodical and other publications issued by the service.

College education and editorial experience required.

Secretary. To assist in the various secretarial activities as are needed by the unit manager and the abstractor-indexer; to handle routine correspondence from personnel in the field, under the supervision of the unit manager; to assist in the receipt of reports and other materials sent to the Information Service; to perform other duties as required.

College education and secretarial experience required.

Clerks (2). To perform typing of records, filing, and other clerical responsibilities; to assist in various clerical tasks as needed.

High School graduation, and training in business methods preferred.

There is no attempt here to be complete in the assignment of responsibilities, nor is there any claim that this staff will be sufficient after the Service has developed. It is incumbent on the administration of the Educational Media Branch to make certain that the budget and personnel for this Service are established to perform a job that will be useful to the variety of citizens who are interested in a smoothly operating "clearing house."

Quarters and Equipment

The consultants have been informed that quarters would be made available at the Educational Media Branch in Washington. It is estimated that approximately 1900 square feet would be needed as follows:

Office space for supervisor	150 square feet
Space for Classifier-Indexer	150 square feet
Space for other staff	400 square feet
Space for cabinets and files, work tables	200 square feet
Space for shelving reports	1000 square feet

It is likely that immediate access to the report would warrant shelving adjacent to the staff quarters. However, shelving arrangements might well be discussed in terms of library service to the various units of the Department of Health, Education, and Welfare. The various possibilities in handling the activities of the Service have been discussed elsewhere, and are related to the type of equipment needed. The most modern office equipment, as well as such devices as the Listomatic camera, if applicable to the development of cumulative indexes of research on educational media, should be acquired. In any budgetary proposal for the Service as a whole a minimum of $10,000 should be allotted for equipment. Another $10,000 should be allotted for furniture, shelving, and other needs of the unit.

Supplies, Printing, Etc.

As envisaged, the Service will require a budgetary allotment for supplies, including forms of various kinds, cards, stationery, mimeographing apparatus, Verifax or other rapid reproductive devices, and a basic allotment for printing. It is difficult to estimate the costs of these items at this time, but if the Service is to issue a periodical, prepare indexes, and engage in other printing activities, it is necessary to estimate at least $25,000 annually for the cost of these activities.

Miscellaneous

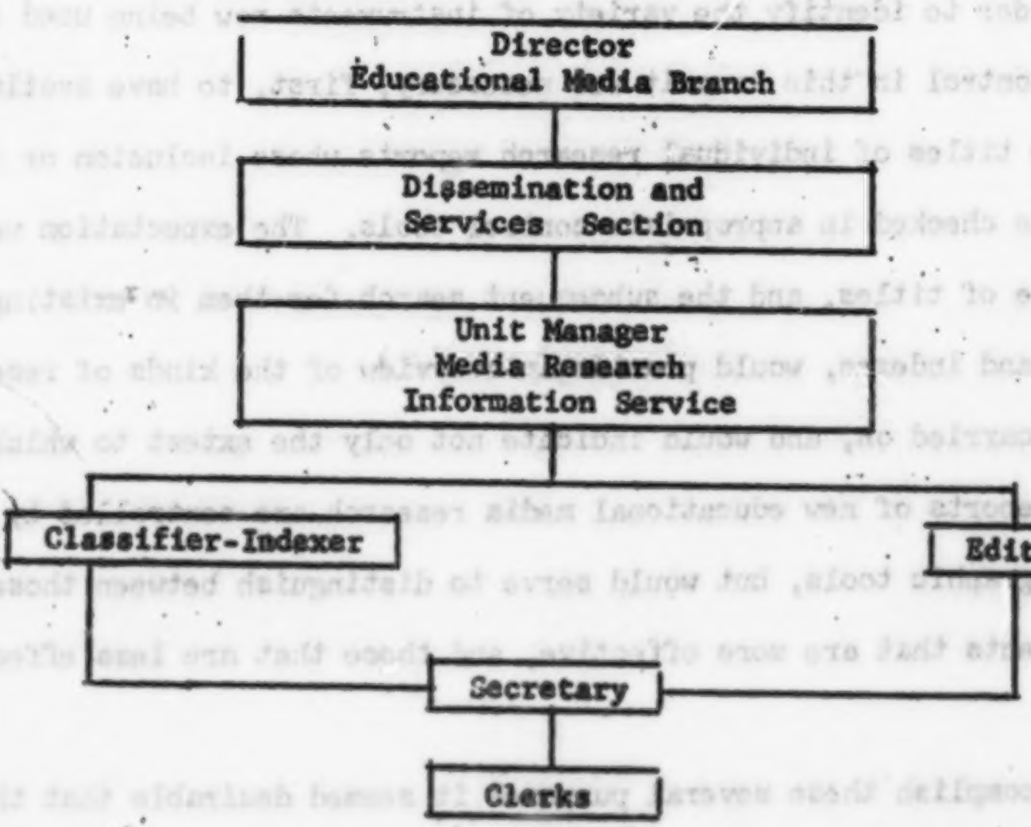
Two other items which appear to have budgetary implications are funds for guidance in the testing and development of the classification system and subject heading list, and funds for the payment of expenses of an advisory committee to the Service. It is estimated that $7,500 would be needed for the first item, and $1,800 for the second.

Summary

The above statement on personnel, quarters and equipment, and supplies and printing and other items is provided so as to indicate the nature of the scope of the Service. The sum of $89,275 may represent a minimum or even an underestimate of the actual costs; it is apparent, for example, that minimums have been used in stating the starting salaries of of personnel in the several grades. An actual budget would need to take this and similar matters into consideration.

Figure 2

PROPOSED
U.S. OFFICE OF EDUCATION
MEDIA RESEARCH INFORMATION
SERVICE


Director
Educational Media Branch
Dissemination and
Services Section
Unit Manager
Media Research
Information Service
Classifier-Indexer
Editor
Secretary
Clerks

II

BIBLIOGRAPHICAL IDENTIFICATION OF RESEARCH STUDIES IN EDUCATIONAL MEDIA

According to the application statement for this project: "the first part of the study will seek to isolate the variety of instruments which are now used to control information now being developed through studies of new media in educational situations." The following is a report of the analysis that has been made in connection with this section of the project.

In order to identify the variety of instruments now being used for bibliographic control in this area it was necessary, first, to have available a sampling of the titles of individual research reports whose inclusion or exclusion could be checked in appropriate control tools. The expectation was that this sample of titles, and the subsequent search for them in existing bibliographies and indexes, would provide an overview of the kinds of research that have been carried on, and would indicate not only the extent to which the published reports of new educational media research are controlled by standard bibliographic tools, but would serve to distinguish between those control instruments that are more effective, and those that are less effective in this area.

To accomplish these several purposes it seemed desirable that the sample of titles be restricted to actual reports of research, that it include material relating to all of the important audio-visual media, that it should not limit its inclusions by reason of form of publication, and that it should include older, as well as more recent, material. Among existing bibliographies that might have been used as the sample, the one that best met the above requirements appeared to be the list of titles appearing in the bibliographical section of

William H. Allen's Audio-Visual Communication Research. This work, published by the System Development Corporation, is a review of research in the subject up to the summer of 1958, and is scheduled to appear under the subject "Audio-Visual Communication Research" in the new edition of the Encyclopedia of Educational Research, which is to be released in 1960. The included bibliography of 343 items appears to be a careful selection of the more important reports about research in all major media for audio-visual education, appearing in a wide diversity of published forms, during the past 36 years. Because the items in this bibliography cover a wide range of years, media, and publication forms, and because (by the fact of inclusion in this selective review), each one has been judged by an expert in the field to be important, it was believed that this list would provide a cross section of material which it would be reasonable to expect that other good sources might list.

At the outset, 13 of the 343 items were eliminated, for the purposes of the present investigation, because they were found to be analytics from the previous edition of the Encyclopedia of Educational Research, or analytics from monographs for which the full entry also appeared in the list. Of the remaining 330 items, ranging in publication date from 1922 through 1958, 106 were identified as non-serial monographs, 77 were monographs in numbered series, and 147 were periodical articles.

In order to select a group of standard control instruments which would be expected to list some or all of the items in this bibliography, a more detailed analysis of the sources reporting new educational media research was needed. When this more specific breakdown had been completed, it was found that the 106 non-serial monographs represented the following publishing sources:

Commercial and university-press publishers	38 items
Educational (and related) associations	10 "
University publications (other than university presses)	14 "
National government publications	9 "
State government publications	3 "
Municipal government publications	5 "
Dissertations	27 "
	106 items

Of the 77 monographs in numbered series, the publishing sources were:

Government-sponsored research projects	62 items
Universities and educational associations	15 "
	77 "

Of the 147 periodical articles, the sources were:

Education and educational psychology journals	58 items
Psychology journals	19 "
Audio-visual Communication Review	55 "
Journals of miscellaneous subjects from films to statistics	15 "
	147 "

One of the results of this analysis was to demonstrate that the reports of research into new educational media have appeared about as frequently in periodicals as in monographs. Of the 330 items in the sample, 44.55% have bee published in periodicals, as against 55.45% in monographs. This latter figure, further broken down into serial and non-serial monographs, shows that 23.33% of the total of 330 were monographs in numbered series, while 33.12% were non-serial publications. The implication that may be drawn from this finding is that any control tool designed to embrace the entire field of research into new educational media cannot give primary emphasis either to monographs or to periodicals, but must be about equally adaptable to both forms of publication.

A second result of this analysis of publishing sources was to indicate that five different varieties of instruments might be expected to contribute to the present state of bibliographic control of this area:

1. Periodical indexes, abstracting journals, annual bibliographies
2. Indexes to government publications
3. Lists of dissertations
4. National and general bibliographies
5. Subject bibliographies.

For each of these five varieties, choices were made of the specific instruments that seemed most likely to be appropriate in terms of form, subject interest, and date. Thus, the following control tools were chosen for checking against the sample:

1. Periodical Indexes; Abstracting Journals; Annual Bibliographies:
   - a. Education Index
   - b. Industrial Arts Index
   - c. International Index
   - d. Public Affairs Information Service
   - e. Psychological Abstracts
   - f. Sociological Abstracts
   - g. Social Science Abstracts
   - h. U.S. Office of Education. Bibliography of Research Studies in Education.
2. Indexes to Government Publications:
   - a. U.S. Dept. of Commerce. U.S. Government Research Reports
   - b. U.S. Library of Congress. Monthly Checklist of State Publications
   - c. U.S. Supt. of Documents. U.S. Government Publications: Monthly Catalog.
3. Lists of Dissertations:
   - a. Dissertation Abstracts
   - b. Doctoral Dissertations Accepted by American Universities
   - c. Index to American Doctoral Dissertations
   - d. Doctor's Dissertations Under Way in Education
   - e. Research Studies in Education (1953-)
   - f. Research Studies in Education; A Subject Index of Doctoral Dissertations, Reports and Field Studies (1941-1951)
   - g. Moldstad, John. "Doctoral Dissertations in Audio-Visual Education" (1956); "Supplement I" (1958).
4. National and General Bibliographies:
   - a. Cumulative Book Index
   - b. U.S. Library of Congress. National Union Catalog.
5. Subject Bibliographies:
   - a. McClusky, Frederick D. The A-V Bibliography. 2d ed. 1955
   - b. Larson, L.C. and Runden, Charity E. Bibliography of Research in Audio-Visual Education and Mass Media, 1930-1950. 1950
   - c. Kumata, Hideya. An Inventory of Instructional Television Research. 1956
   - d. Hoban, Charles F., and van Ormer, Edward B. Instructional Film Research, 1918-1950. 1950
   - e. Audio-Visual Communication Review.

Each of these selected sources was searched only for those items of the Allen bibliography for which there was a reasonable expectation of inclusion. In order to determine this expectation, the editorial policies and dates covered by each source had to be taken into consideration. Some of the bibliographical tools that were searched would not be regarded as "standard" for the field of education, but it seemed better to err on the side of inclusiveness, rather than run the risk of overlooking some instrument that might prove to be unexpectedly valuable. A few of the instruments, such as *Social Science Abstracts* (1929-1932), are no longer current, but were examined for their inclusion of older material. The findings resulting from the checking of each of the sources are as follows:

1.a. *Education Index*. N.Y., H.W. Wilson, 1932-

Because this is one of the most comprehensive of the bibliographic controls for educational publications, including both monographs and periodical articles, the only items in the sample that were not sought in this source were 89 which either were published before 1929 (the *Education Index* began in this year), or were published in periodicals not indexed by this tool. Included among the omissions in this latter category, were 55 articles from the *Audio-Visual Communication Review*. The findings:

Of 77 monographs (in series) checked, 11 were found (14.02%)
Of 97 monographs (non-serial) checked, 29 were found (29.88%)
Of 67 periodical articles checked, 58 were found (86.56%)

Included in one or more of the above categories were 27 dissertations checked, of which 1 was found (3.70%); and 77 government publications checked, of which 5 were found (6.49%).

Thus, by including 98 out of 241 items, the *Education Index* proved to be 40.66% effective in covering the material for which it was searched. If we consider the whole sample of 330 items as constituting the universe, however, the *Education Index* is only 29.69% effective as a tool for locating references to all published research relating to new educational media.

As will be seen above, the Education Index is most successful in listing periodical articles. However, it seems worth calling attention to the fact that it would be even more successful in this respect if it were to index the Audio-Visual Communication Review which, as will be shown later, is an especially important source in this area. If Education Index had included the Audio-Visual Communication Review in its coverage, and if it had indexed, as it probably would have done, the 55 articles in the sample that were published in this periodical, the Education Index could have been credited with including 113 out of the 122 periodical articles for which it would have been searched, for an effectiveness rating of 92.62% for periodicals, instead of the present 85.56%. At the same time its overall coverage for this important aspect of modern education, would have been raised from 29.69% to 46.36% for the 330 items in the total sample. But to the searcher for research material about new educational media, it is what is indexed that counts, rather than what might have been, so that to him the lower figures are all that matter.

As far as this study is concerned, the Education Index appears to be an inadequate source for listing educational monographs. It should be noted, however, that many of the commercial publications which this source did not include, would have only a peripheral value to the general field of education, so that their omission is not remarkable. In searching this tool it was found that the items are usually indexed under a broad audio-visual heading (e.g. "Audio-visual education"), and/or a specific heading (e.g. "Motor learning"; "Excursions").

1.b. Industrial Arts Index. N.Y., H.W. Wilson, 1913-

Of 6 periodical articles searched in this index, 1 was found. But because this is no longer a current source (since 1958 when it split to form the Applied Science and Technology Index and the Business Periodicals Index), it received only passing attention in this investigation. Its two successors, however, although they began too late to include any of the items in the Allen bibliography, may have value in the future as indexes to material about new educational media. This is suggested by the fact that the 1958 volume of the Applied Science and Technology Index employed such subject headings as:

AUDIO-VISUAL AIDS
COMMUNICATION
COMMUNICATION, THEORY OF
MOVING PICTURES IN EDUCATION
MOVING PICTURES IN INDUSTRY
MOVING PICTURES IN SAFETY EDUCATION
TELEVISION
TELEVISION BROADCASTING. EDUCATIONAL PROGRAMS
TELEVISION IN EDUCATION
TELEVISION IN HEALTH EDUCATION

And in the corresponding volumes of the Business Periodicals Index were found the headings:

EMPLOYEES, TRAINING OF
MOVING PICTURES IN INDUSTRY (with a see-reference
  from MOVING PICTURES IN EMPLOYEE TRAINING)
TELEVISION IN EDUCATION

1.c. International Index. N.Y., H. W. Wilson, 1907-

This is an index to general periodicals of a somewhat scholarly nature, including Public Opinion Quarterly, and Quarterly of Film, Radio and Television. It was searched because two of the periodical articles in the sample were from the Public Opinion Quarterly. Both of these were found in the International Index, giving it an effectiveness rating of 0.60% for the sample. Checking the April 1955-March 1958 cumulative volume, entries were found under the following subject headings, but it was impossible to judge from the titles whether or not the articles were reports of research:

COMMUNICATION
MOVING PICTURES IN EDUCATION
RADIO BROADCASTING AND CHILDREN
TELEVISION IN EDUCATION
TELEVISION IN ADULT EDUCATION
VISUAL INSTRUCTION

1.d. Public Affairs Information Service. N.Y., Pub. Aff. Inform. Service, 1915-

No attempt was made to conduct a comprehensive search of this source because it has only a subject approach, and there could be no certainty that all appropriate subject headings for the titles in the sample would be anticipated and examined. However, a spot check was made, with the following results:

Of 2 monographs (in series) checked, 1 was found
Of 10 monographs (non serial) checked, 3 were found
Of 5 periodical articles checked, 3 were found

Included in the above categories were 9 government publications searched, of which 3 were found (33.33%). The Public Affairs Information Service, therefore, by indexing 7 out of 17 items proved to be 41.18% effective in covering the material for which it was searched, but only 2.12% effective for the universe of the sample.

Although the primary emphasis of the Public Affairs Information Servic is on political science, government and sociology, it does employ such subject headings as:

TELEVISION IN EDUCATION
AUDIO-VISUAL INSTRUCTION.

The actual articles included under these headings, however, appear to be concerned more with programs for municipal use of audio-visual media, and their administration, than with the results of research.

1.e. Psychological Abstracts. Lancaster, Pa., Amer. Psychological Assoc. 1927-

All forms of material in the sample were searched in this source: periodicals, monographs (including government publications and unpublished dissertations), serial reports, and studies. A preliminary examination of Psychological Abstracts revealed that some of the items which had been abstracted had appeared in periodicals not included in the "List of Periodicals Indexed." Therefore, none of the periodical articles in the sample was omitted from the search. Nor did it appear to be advisable to eliminate any of the items because of date. Although a time-lag of about a year between publication of the original and the appearance of the abstract was found to occur most frequently, time-lags of as much as six years were encountered. For this reason the entire sample was searched, and the decision to avoid a date limitation was justified by the discovery of a 1922 item, despite the fact that Psychological Abstracts began publication in 1927. The results of the search were as follows:

Of 77 monographs (in series) checked, 49 were found (63.63%)
Of 104 monographs (non-serial) checked, 30 were found (47.11%)
Of 149 periodical articles checked, 47 were found (31.54%)

Included in one or more of the above categories were 27 dissertations checked, of which 13 were found (48.14%); and 77 government publications checked, of which 44 were found (57.14%).

Thus, by including 126 out of 330 items, Psychological Abstracts proves to be 38.2% effective as a tool for locating reference to all published research relating to new educational media (on the basis of the sampling as the universe). This index of effectiveness is higher than that found for Education Index (29.6% and can be credited to the fact that Psychological Abstracts has the more inclusive coverage for monographs (serial and non-serial), dissertations, and governme publications. It was observed that the majority of the items relating to new educational media research omitted from Psychological Abstracts fell substantially outside the field of psychology.

In checking Psychological Abstracts for the present purpose, it was possible to employ the author index. But if a person interested in new educational media research were to make use of Psychological Abstracts to learn of new developments in the field, a subject approach would be necessary. This would require extensive searching, due in part to the broad subject arrangement, and in part to the fact that the headings often do not suggest a relationship to an audio-visual interest (e.g. SOCIAL PSYCHOLOGY- SOCIAL ACTION; COMPLEX PROCESSES AND ORGANIZATION- LEARNING AND MEMORY). A subject approach would be aided, however, by the detailed subject indexes at the end of each volume, even though these refer the user only to abstract numbers.

1.f. Sociological Abstracts. N.Y. . 1952-

Abstracting articles on sociology and related fields in 100 major journals since 1952, this source was searched for 9 periodical articles that appeared to be within its scope. Of these 9 articles, only 1 was found.

Although it is a stated policy of Sociological Abstracts not to duplicate ground covered by other abstracting services, the one title located here was found abstracted elsewhere as well. On the basis of title information, no differences in characteristics were observable to explain why the one article was abstracted while the other eight were not; all nine articles were brief.

The arrangement by broad major subject areas would result in the need for extensive scanning to locate specialized items by the subject approach. The title found was under the general heading COMMUNICATION, without further sub-arrangement. Some assistance in this approach would be provided by the subject index at the end of each volume, though this too refers to the abstracts only by number.

1.g. Social Science Abstracts. N.Y., Social Science Abstracts. 1929-33.

This is comprehensive in coverage for all forms of material, monographic and serial, and is international in scope. But because of the brief period of its existence, from 1929 to 1933, only seven items in the sample fell within its time period. The results of the search were as follows:

Of 4 monographs (non-serial) checked, 1 was found
Of 3 periodical articles checked, 1 was found

Therefore, out of 7 items 2 (28.57%) were located. One of the above monographs was a dissertation, but this was not found.

A comparison of the two citations found, with the five which were not found, reveals no distinct area of dissimilarity, such as subject, length of report, group studied, nor source cited, to indicate that the five omissions were intentional.

1.h. Bibliography of Research Studies in Education. U.S. Office of Education. Library. Washington, Govt. Printing Office. 1929-1942.

This is another non-current source, having been published from 1929 through 1942, and covering material dated 1926 through 1940. Within the limits of this time period, however, the Bibliography was comprehensive in intent, indexing selections from educational periodicals, abstracts of studies, and published and unpublished studies. Because of this inclusiveness, no items of the sample were eliminated from the search exclusively on the basis of form though, by chance, the date limitation of this source ruled out all monographs in series. The results of the search were:

Of 18 monographs (non-serial) checked, 4 were found (22.22%)
Of 18 periodical articles checked, 0 were found

Included in the above categories were 5 dissertations, and five government publications, none of which were found. Thus, by including only 4 of the 36 items for which it was searched, the Bibliography of Research Studies in Education proved to be only 11.11% effective even for the small part of the sample that fell withi its scope. The unfound titles did not appear to possess any characteristics that would suggest their omission had been intentional.

Because of the arrangement of the Bibliography, a strictly subject approach to the location of items relating to audio-visual research would be somewhat difficult, but would be facilitated by the subject indexes.

2.a. U.S. Government Research Reports. U.S. Dept. of Commerce. Office of Technica Services. Former Titles: Bibliography of Scientific and Industrial Repor (1946-1949); Bibliography of Technical Reports (1949-1954). Washington, Govt. Printing Office. 1955-

All of the technical reports of government sponsored research projects were searched by subject in the semi-annual subject indexes. The results of the search:

Of 58 monographs (in series) checked, 37 were found (63.79%)
Of 4 monographs (non-serial) checked, 0 were found

Thus, by listing 37 items, from a total of 62 checked, this source proved to be 59.67% effective in representing the materials within its scope.

The items not found cover a period of several years, and fit no recognizable pattern. Many of the titles which were located were listed two or three years after date of publication. In each issue the items relating to new educational media research were listed in the sections headed:

Personnel Supplies and Personnel Equipment (formerly Personnel Aptitude and Testing)

Photographic and Optical Goods

Psychology.

The subject headings in the index were usually broad, and not always consistent. Examples of this inconsistency can be seen in the following comparison of titles with the subject headings under which they were indexed:

Logistics of Sound Motion Pictures for Military Training.
Subject heading: MILITARY TRAINING- VISUAL AIDS;

Implications of Learning Theory for the Design of Audio-visual Aids.
Subject heading: TRAINING FILMS, AUDIO-VISUAL;

A Study of the Effects of Different Types of Review and of "Structuring" Sub-titles on the Amount Learned From a Training Film.
Subject headings: MOTION PICTURES, EDUCATIONAL and TRAINING FILMS

Occasionally the subject headings were quite specific (e.g. MOTION PICTURES, EDUCATIONAL- EFFECTIVENESS). One of the special values of this source is that it provides complete bibliographical data for individual technical reports published in project series.

2.b. Monthly Checklist of State Publications. U.S. Library of Congress. Washington, Govt. Printing Office. 1910-

Only three of the items in the sample were publications of state governments as such, but several were publications of bureaus within state universities, and therefore were also searched in this source. Out of a total of 15 such publications, only 1 was found. This one was a publication of the University of Kentucky's Bureau of Social Service.

Because there were so few state publications included in the sample, the low rate of effectiveness shown above may not give a true picture of the potential effectiveness of this source. In the future, when more state education boards and the education departments of state universities develop audio-visual, and particularly television, programs and projects, this source appears likely to become increasingly valuable.

2.c. U.S. Government Publications: Monthly Catalog. U.S. Superintendent of Documents. Washington, Govt. Printing Office. 1895-

All U.S. government publications and publications of government sponsored research projects, included in the sample, were searched in this source under author and subject. The results:

Of 60 government publications (monographs in series) checked, 7 were found (11.66%)
Of 4 government publications (non-serial monographs) checked, 0 were found

With only 7 items found, out of 64 searched, the figure for effectiveness is merely 10.93%.

Of the 7 items located, 5, ranging in dates of publication from 1947 to 1955, were found in the 1956 volume, and were reports of the government-sponsored Instructional Film Research Program carried out by the Pennsylvania State University at the Special Devices Center, Port Washington, Long Island. The other two were published by the Department of Agriculture, and the Army Air Force.

Because the index to the Monthly Catalog makes frequent use of catchword-subject entries, this is a difficult and uncertain source for the identification of reports of new educational media research, when the approach must be made solely by subject.

3.a. Dissertation Abstracts. Ann Arbor, University Microfilms, 1938-

Started in 1938, this merged with Doctoral Dissertations Accepted by American Universities in 1955 to become Index to American Doctoral Dissertations. Dissertations dated between 1938 and 1955, therefore, were the only ones searched in Dissertation Abstracts. Of the dissertations in the sample which fall within this time period, 22 were clearly indicated as doctoral dissertations. In addition, a preliminary examination of citations for the Technical Reports of research programs of the Special Devices Center of Pennsylvania State College had shown that 9 out of 63 were dissertations, or were based on dissertations, so *Dissertation Abstracts* was searched for these too. Of the total of 31 items checked in this source, 10 were found (32.29%); but of the 22 monographic dissertations included in this number, only 2 were located (10.00%) whereas of the 9 SDC reports, 8 were found (90.00%).

The use of *Dissertation Abstracts* for a subject approach to dissertations in the area of new educational media would involve scanning entries under various subheadings such as are found under "Education".

3.b. *Doctoral Dissertations Accepted by American Universities*. N.Y., H.W. Wilson, 1934-1955.

This source, published between the years 1934 and 1955, was searched only for those dissertations in the sample which were produced during this time period. As was true of *Dissertation Abstracts*, above, this selection included 22 monographic dissertations, and 9 Technical Reports of the Special Devices Center. Of the total of 31 items, 27 were found (87.09%), the highest rate of effectiveness found for any of the general sources that are restricted to the listing of dissertations. Among the 4 dissertations not located in this source, 3 were non-serial monographs.

An attempt to employ a subject approach to *Doctoral Dissertations* in order to locate studies about new educational media would be difficult, requiring search under broad academic subjects, for example, "Social Science - Education" (further divided by accepting institution).

3.c. *Index to American Doctoral Dissertations*. Ann Arbor, University Microfilms, 1956-

The first issue of this instrument included dissertations of the academic year 1955/56, and it continues to the present. For this time period the sample included 8 dissertations, of which 4 were found in the *Index* (50.00%).

As a successor to Dissertation Abstracts and to Doctoral Dissertations (see reports above), the arrangement by broad academic subject area is continued. This means that a subject approach for the purpose of locating studies relating to new educational media would entail involved searching.

3.d. Doctor's Dissertations Under Way in Education, (1931-1936 in the January issues of the Journal of Educational Research; since 1947 in The Phi Delta Kappan).

Dissertations, in the sample, between the years 1931 and 1946 were searched in this source. After 1946 the material is covered by Research Studies in Education and the Research Studies in Education Index. Because an examination of The Phi Delta Kappan dissertation listings (1947-) would constitute a duplication of sources searched, only the Journal of Educational Research compilatio (1931-1946) were investigated. There were 6 dissertations in the sample for this time period, and of these 5 were found, for an effectiveness figure of 83.33%.

In Doctor's Dissertations Under Way in Education a purely subject approach to dissertations in the area of new educational media is feasible by virtue of the arrangement into subject sections, one of which is "Audio-visual Education".

3.e. Research Studies in Education. Bloomington, Ind., Phi Delta Kappa, 1953-

The titles of 12 dissertations for the period 1953 to 1958 were searched in this source. Of these 12, 9 were found (75.00%). The unfound items had no special characteristics that would explain their omission.

A separate section on "Audio Visual Education" would facilitate a subject search for dissertations in this area.

3.f. Research Studies in Education, a Subject Index of Doctoral Dissertations, Reports, and Field Studies, 1941-1951. Bloomington, Ind., Phi Delta Kappa, 1952.

This source is reported independently because of its coverage of all forms of material represented in the sample: periodical articles, serial and non-serial monographs, dissertations, and government publications. The results of the search were as follows:

Of 44 monographs (in series) checked, 2 were found (4.54%)
Of 39 monographs (non-serial) checked, 8 were found (20.51%)
Of 44 periodical articles checked, 9 were found (20.45%)

Included in one or more of the above categories were 12 dissertations, of which 7 were found (58.33%); and 44 government publications, of which 2 were found (4.54%). Thus, by including 19 out of the 127 items for which it was searched, this instrument proved to be 14.97% effective.

3.g. Moldstad, John. "Doctoral Dissertations in Audio-Visual Education." Audio-visual Communication Review 4:291-333; Fall 1956; "Supplement I", A-V. C.R. 6:33-48, Winter, 1958.

This bibliography was published in the Audio-Visual Communication Review; the basic list containing 459 items, and Supplement I, 118, for a total of 577.

Because of its highly specialized nature, and its recency, this bibliography was expected to provide quite thorough coverage of its limited field. This expectation was realized. Of 26 items in the sample which were shown by their citations to be doctoral dissertations, 25 (96.15%), were located either in the basic list, or in the supplement. The one doctoral dissertation listed in the sample, but not in this source, appears to have been omitted inadvertently, rather than by intention. A Cornell dissertation of 1945 by Stutz, relating to textbook illustrations in history, appears to meet the requirements for inclusion.

Although the entries in Moldstad are arranged alphabetically, anyone searching for dissertations relating to a specific topic would find the task fairly easy to accomplish. The reason for this is that each citation is accompanied by a symbol which serves to place it in the proper division of a classification table which accompanies the bibliography.

4.a. Cumulative Book Index. N.Y., H.W. Wilson, 1898-

This source was searched for serial and non-serial monographs, excluding dissertations and government publications. Of 60 such items checked, 45 were found (75.00%). Those not located were found to represent, about equally, commercial, university, and association publications, falling into no recognizable pattern to explain their omission from this source.

Because most of the monographs in the sample relate to extensive aspects of audio-visual media and research, it is not remarkable that the subject headings under which they were listed in the Cumulative Book Index were correspondingly broad.

4.b. U.S. Library of Congress. National Union Catalog. Ann Arbor, J.W. Edwards, Inc., 1950-

This source was searched only for monographs (serial and non-serial) from 1950 to date. The earlier date was selected because the Library of Congress' printed subject catalog began in 1950, and therefore no generally available subject approach to this library's holdings existed before that year. The results of the search were:

Of 64 monographs (in series) checked, 33 were found (51.56%)
Of 74 monographs (non-serial) checked, 35 were found (47.29%)

Included in one or the other of the above categories were 19 dissertations, of which 2 were found (10.52%); and 72 government publications, of which 35 were found (48.61%). By including 68 of the 138 items, this source proved to be 49.27% effective in listing the items for which it was searched.

Most of the items that were not found in this source were dissertations, project reports, and miscellaneous publications of universities and associations. Many of the project reports which were counted as "found" in the Library of Congress Catalog were not listed individually. Instead, a main card was found for the project as a whole, or for the series to which the items belonged.

A subject search in this source for reports of research relating to new educational media would have to be conducted by the use of broad subject headings, such as:

MOVING PICTURES IN EDUCATION
TEACHING-AIDS AND DEVICES

5.a. McClusky, Frederick D. The A-V Bibliography. 2d ed. Dubuque, Iowa,
Wm. C. Brown, Co., 1955.

This source was searched for periodical articles, monographs (serial and non-serial), dissertations, and government publications prior to 1955. The results of the search were as follows:

Of 57 monographs (in series) checked, 33 were found (57.89%)
Of 80 monographs (non-serial) checked, 47 were found (58.75%)
Of 104 periodical articles checked, 48 were found (46.15%)

Included in the above categories were 20 dissertations, of which 13 were found (65.00%); and 57 government publications, of which 33 were found (57.89%). Thus, by including 128 of the 241 items, this source proved to have an effectiveness of 53.11% for the items for which it was searched.

One of the main sections of this Bibliography is headed "Research on Value and Utilization of Audio-Visual Materials", which is organized by multiple subdivisions. This feature makes this source easy to use for subject searches. Indeed, this is the only approach that can be used, because neither author nor title indexes are provided.

With few exceptions, the material not found in this source appeared, from an examination of the citations, to consist of items which primarily would fall within a subject area other than that of audio-visual research. Thus, the closeness or remoteness of the association with the audio-visual field appears to be the basis for inclusion or exclusion of items from the Bibliography.

5.b. Larson, L.C. and Runden, Charity E. Bibliography of Research in Audio-Visual Education and Mass Media, 1930-1950. Bloomington, Indiana Univ. Audio-Visual Center, May 1950. Supplement I. August 1950.

This source contains 1203 items in the original volume, and 1332 in Supplement I, for a total of 2535, including "some material that is obviously not research"[1]. Although the date limitations appear in the title as 1930-1950, 115 items in this work bear pre-1930 dates (one item was published in 1900, and 13 are earlier than 1920); but in the only entry having a date later than 1949, the date has the significance of "doctoral dissertation [by the joint compiler] in progres in 1950" (other dissertations-in-progress were undated). For the purpose of checking against the sample, therefore, the effective dates of Larson and Runden were considered to be 1900 through 1949. In this span of years, the sample includes 104 items, of which 70 were found in this Bibliography, for an effectiveness rating of 67.31%.

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[1] Introduction. p.[2]

The Larson and Runden Bibliography is not a current source of information, nor does its alphabetical arrangement permit any kind of specific subject search. Furthermore, especially in the basic volume, the frequency of citations that are bibliographically incomplete (lacking date, and/or identification of sponsoring or publishing source), must increase the difficulty of using this work.

5.c. Kumata, Hideya. An Inventory of Instructional Television Research. Ann Arbor, Educational Television and Radio Center, Dec. 1956.

This work includes two bibliographic parts: "Section II. Abstracts of Pertinent Articles"; and "Appendix A. Additional Readings". In the first of these, 71 items relating to educational television research are reported at considerable length; and in the second, 173 items are listed, with brief annotations. This list of "Additional Readings" includes many publications that are not reports of research; textbooks, reports of conferences, annual reports, etc.

The sample used for the present investigation includes 62 items whose direct association with television research is established by the compiler (Willi H. Allen) in his discussion of research progress, and one more where the relationship to television is ambiguous in the discussion, but where the title of the ite clearly establishes the association. Thus, the sample includes a minimum of 63 titles relating to the subject interest of Kumata's Inventory. Of this number, 7 were published too late for possible inclusion in this source. Therefore, the Inventory was checked for its inclusion of 56 items appearing in the sample, relating to television research, and published before 1957.

Of these 56 items, 31 (55.35%) were found listed among the 71 abstracts in "Section II" of this source, while 6 others were included among the "Additional Readings," for a total of 37, and an effectiveness rate of 66.07%.

The abstracts in the Inventory are arranged alphabetically, rather than by subject; and the readings are grouped, not by subject, but by form of material. However, it is probable that the topical arrangement of "Section I. An Overview of Instructional Television Research," in which numerical references are made from the discussion topics to individual abstracts, would provide the searcher for references about aspects of educational television research, with a satisfactory approach to material on the specific subject of his immediate interest.

5.d. Hoban, Charles F. and van Ormer, Edward B. Instructional Film Research, 1918-1950. Technical Report No. SDC 269-7-19, Instructional Film Research Program, Pennsylvania State College, Port Washington, Long Island, Special Devices Center, 1950.

Appended to the above report is a list of "References" containing 296 items relating to research with instructional films, and published in 1918 through 1950 (one article, dated 1910, preceded this series of years).

The sample used for the present investigation contains a minimum of 146 items associated with educational films either by reason of the editor's discussion of the items, or by reason of title terminology, or by both. Of this total of 146, however, 74 were published later than 1950. Thus, only 72 items in the sample were appropriate for checking in Hoban and van Ormer. Of these 72, 61 were found (84.72%). An examination of the omitted items revealed that 5 were published in 1950. Although the "References" purport to cover through 1950, and several 1950 items were located, it is entirely possible that these 5, although they bear this date, may not have been available until later. If, for this reason, these 5 titles were to be subtracted from the number of items in the sample for which an appropriate search could be made in this source, the Hoban and van Ormer "References," by including 61 of the 67 items for which it was searched, would have an effectiveness of 91.04%.

The classified arrangement of topics in the textual section of Hoban and van Ormer would permit a searcher to locate very easily the specific aspect of educational film research representing his immediate interest. It would be simple, therefore, to follow the author and title references from the text to the corresponding items in the "References."

Despite the fine showing of effectiveness made by this bibliography for the materials for which it was searched, it must be remembered that this is not a current source of information about research in this area. Slightly more than half (50.68%) of the material about educational film research, appearing in the sample, is dated later than the terminal date of Hoban and van Ormer.

5.e. *Audio-Visual Communication Review*. Washington. Natl. Educ. Assoc. Dept. of Audio-Visual Instruction, 1953-

This quarterly journal is a publication of the Department of Audio-Visual Instruction of the National Education Association. It began publication in the winter of 1953, with this editorial policy:

> 1. Purpose.
>
> *Audio-Visual Communication Review* is a professional journal of the audio-visual field. As such, its major purposes are to:
>
> a. Bring to all persons interested in any aspect of human communication, particularly those areas of the communication process in which audio-visual methods and materials play a significant part, professional information and thinking at the highest possible levels.
>
> b. Provide a means through which specialists in communication may publish the results of research studies, theoretical constructions and critical analyses of the problems of the field.
>
> c. Bring to bear, thru publication of pertinent materials, the broad thinking of such associated disciplines as sociology, social psychology and social anthropology on the problems of communication in modern society.
>
> 2. Content
>
> In order to achieve these purposes, the *Audio-Visual Communication Review* will include, together with other professional content, reports of original research, general theoretical articles, philosophical

> discussion of professional problems, research summaries and abstracts, reports of developmental programs of national and international significance, translations of pertinent articles in foreign literature, and critical reviews of important literature and production in the various audio-visual communication media.[1]

Each issue contains 4 to 6 long articles, often reviews of certain aspects of research. There are also departments which appear in each issue: "World Communications"; "Book Reviews"; and "Research Abstracts", the latter arranged by medium: television, radio, etc. The abstracts range from half a page to a page and a half in length. The research is abstracted from journals in education, psychology, and related fields; and from private, academic, and governmental research projects.

Of the 330 items in the sample, 55 (16.66%) did not require searching in the *Audio-Visual Communication Review* because their citations indicated that they had appeared as articles in this journal. The annual author indexes of the *Review* were checked first for all other items in the sample published from 1950 to date to test the retrospective coverage of this source. Of 170 items of this kind, 88 were found (51.76%). Then, restricting the search to more reasonable limits, the indexes were checked for the 104 items of the sample that had been published since 1953, the year the *Audio-Visual Communication Review* began publication. Of these 104 items, 85 were found (81.73%).

It should be noted that a certain amount of sampling bias is to be presumed from the fact that William H. Allen is the editor of the *Audio-Visual Communication Review*, and is also the compiler of the bibliography used as the sample for this investigation. But even if this should partially invalidate the significance of the high rate of effectiveness found for this periodical, the scope, variety, and recency of material covered by the *Audio-Visual Communication Review* would seem to place it very high among the sources of information about current research in new educational media. Its greatest shortcoming appears to be the increasing difficulty of using it for retrospective searches. This results from the absence of annual subject indexes, or even more to be desired, a cumulating subject index. If the Audio-Visual Communication Review were to be indexed in the Education Index, as discussed earlier in this report, both current and retrospective subject approaches would be provided. However, there may be reason to question whether the style of subject headings used by the Education Index for audio-visual materials would provide the most useful kind of approach for searchers for specific topics in this field. In this connection it can be reported that the next step of the present investigation, that relating to the adequacy of existing classification tables, and of subject heading lists, for new educational media, is under way. The results of this part of the study will appear in the next interim report.

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[1] "Editorial Policy and Charter: Audio-Visual Communication Review." *AVCR* v. 1 no. 2:67-69, Spring, 1953.

SUMMARY AND CONCLUSIONS

On the basis of the bibliographical instruments examined in this study, the findings relating to the adequacy of bibliographical control of the research reports for new educational media can be summarized as follows:

1. The most successful of the periodical indexes, Education Index, has a high effectiveness rating (85.56%) for the periodicals included within its scope, but the periodical articles found in this source represent less than 40% (39.45%) of the total number of periodical articles in the sample. It was found that the periodical devoting most specific attention to the field of new educational media, Audio-Visual Communication Review, is not covered by this source. The Education Index was found to give minimal coverage to monographs, so that of the total of 330 items of all kinds included in the sample this source would permit a searcher to find less than 30% (29.69%).

2. The most successful of the general abstracting journals, *Psychological Abstracts*, showed considerable strength in its coverage of monographs, both serial (63.63%), and non-serial (47.11%); and was fairly effective in its listing of dissertations (48.14%), and government publications (57.14%). However, this source would permit an investigator, looking for research material about new educational media, to locate less than 40% (38.20%) of the items included in the sample. The likelihood that even this degree of success would be achieved is made doubtful by the difficulty of making topical subject searches in this source.
3. The only annual bibliography examined, *Bibliography of Research Studies in Education*, was found to be non-current, and to have an effectiveness of only a little more than 10% (11.11%) for the material falling within the dates of its operation.
4. Of three indexes to government publications, the only one that proved to have any real coverage of the field was *U.S. Government Research Reports*, which achieved an effectiveness rating of 63.79% for the items within its limited scope. For the whole body of materials represented in the sample, this source included little more than 10% (11.01%), and certain inconsistencies of subject-heading terminology and form created doubt about the success with which a topical subject search could be pursued to completion in this source.
5. Among the listings of doctoral dissertations not restricted by subject, *Doctoral Dissertations Accepted by American Universities* had the highest rate of effectiveness (87.09%). Unfortunately this instrument has ceased publication, and its successor appears to be less satisfactory in coverage, listing only 4 items out of the 8 it was expected to include. An even more effective source for the immediate subject field was the special list of "Doctoral Dissertations in Audio-Visual Education," compiled by Moldstad, which achieved an effectiveness rating of 96.15%. In order to maintain its high rate, additional supplements will be required at fairly frequent intervals.

6. Of the two bibliographies of monographs that were checked, the Cumulative Book Index achieved the higher score of effectiveness (73.00%), but its scope is such that the majority of the dissertations and government publications were excluded. Therefore, it was able to include only 45 of the 183 monographs in the sample (24.59%), and for this reason cannot be judged to be an important source for research reports about new educational media. The other bibliography of monographs, the Library of Congress' National Union Catalog, although it listed nearly half (49.27%) of the monographs in the sample, did not give individual entry for many of those that appeared in numbered series, and its subject approach by means of broad subject headings appears to be unsatisfactory for topical subject searches.
7. The subject bibliographies checked were found to be reasonably adequate for the periods covered by each one, but by reason of the failure to provide supplements on a continuing basis, they suffered from limitations of time coverage. McClusky was found to have an effectiveness of 33.11% for the items for which it was searched, but because of its publication date, it could not be searched for 89 (26.96%) of the 330 items in the sample. The Larson and Runden Bibliography, although it was 67.31% effective within its scope, had a time limitation that excluded 126 (38.18%) of the items in the sample. Similarly, although the bibliographies of individual media achieved very high ratings of effectiveness for material up to the date of publication (Kumata 66.07% for television, and Hoban and van Ormer 91.04% for films), they do not provide coverage for recent material. For this reason, Kumata, although only 3 years old, omits more than a tenth (11.89%) of the television items in the sample; and Hoban and van Ormer are unable to include more than half (50.68%) of the items relating to educational film research. On the other hand, the source that does provide current coverage for research in new educational media, The Audio-Visual Communication Review, is too recent to provide for

material before 1953 except through retrospective bibliographies that it may publish; and the lack of a cumulating subject index eventually will detract seriously from the usefulness of this periodical as a source for complete subject searches.

8. As is to be expected in a subject area served by a multiplicity of bibliographical controls, considerable duplication of coverage was found to exist. The number of items in the sampling that were listed in a single source was exceeded by the number that were found in 2 or 3 sources, and was equalled by the number of items that were found in 5 or more of the bibliographical listings. The tabulation for inclusions is as follows:

57 items (17.27% of the total) were found in 1 source
59 " (17.88% " " ") " " " 2 sources
64 " (19.39% " " ") " " " 3 "
37 " (11.21% " " ") " " " 4 "
24 " (7.27% " " ") " " " 5 "
18 " (5.45% " " ") " " " 6 "
5 " (1.52% " " ") " " " 7 "
6 " (1.82% " " ") " " " 8 "
2 " (0.61% " " ") " " " 9 "
2 " (0.61% " " ") " " " 11 "

9. While the majority of the titles was covered by multiple sources, 56 of the items in the sample (16.97%) were located in none of the bibliographical listings. Therefore, in addition to the inadequacies of the individual sources, and their duplication of effort, it has been found that even in combination the sources did not provide complete coverage (as represented by the sample), for research materials relating to new educational media.

10. In reviewing these findings, it should be emphasized that the analyses made in the study are quantitative, rather than qualitative. It will be recalled, however, that the sampling consisted of items regarded as worthy of mention and comment selected by an audio-visual expert in a recent report of research studies of new educational media.

In view of these findings, we must conclude that the reports of research relating to new educational media are not represented satisfactorily in the existing bibliographical controls, and that any information service designed to improve the situation must:

1. Represent all of the new educational media concerning which research is being, or has been conducted;
2. Include references to reports of research issued by private, commercial, governmental, and other investigating agencies;
3. Be receptive to reports issued in a variety of physical forms;
4. Keep up-to-date in its coverage;
5. Provide subject access for topical searches, whether current or retrospective, by means of appropriate devices for subject control of the area. These devices (subject headings and classification tables) are discussed in Sections IV and V of this report.

III

OPINIONS FROM THE FIELD

The questionnaire used to obtain data from a selected sample of those working in the various areas of educational media was sent to 179 persons. By the close of February, 1960, 85 questionnaires were tabulated. Since the close of the tabulation, 21 more were returned. Of these additional ones, 9 were relatively complete and would have been included in the tabulations if they had been received earlier. However, after examination of them, they were not included in the tabulations because they were found to have little effect upon the percentages. Notes beyond the questions, when they added something to the problems involved, have been included in the discussions. Thus, out of a total of 179 questionnaires, 106 (about 60%) were returned.

The response from those who answered was extremely helpful in orienting the consultants in respect to the bibliographical underpinning of the field, in the ways in which researchers and others used current sources, and in the characteristics of an "ideal" information service. The informed opinion as represented in this group of 85 individuals has provided a basis for identifying the problems in research information in the areas of educational media. Moreover, the opinion as a whole has correlated highly with the findings in the survey of the bibliographical sources.

The tabulations indicated that the sampling was sufficient, and even if all the questionnaires had been returned, the percentages probably would not have been altered significantly. The individuals who did not return the questionnaire included a few persons who have participated in Educational Media research, either actively or in a bibliographical sense. Although these individuals might have provided useful comment and additional support to the findings, it is unlikely that any new data is respect to the sources and characteristics of use might have been offered

1. KEEPING ABREAST OF RESEARCH FINDINGS

In education, as in other fields of endeavor, it is essential for personnel engaged in either instruction or research into the methods, media, or equipment of instruction to have ready access to information concerning their activities. There are a variety of reasons why individuals in their several capacities in the areas of educational media approach this problem of information in different ways. The range is considerable, and there is a direct relation to the actual work of the individual as to the steps that he will take in order to learn of developments or research findings. This is no less true of educational media than it is of medicine, engineering, law, chemistry or librarianship. Apparently, if individuals are in need of information they will become familiar with, and explore all possibilities of aid. Undoubtedly, there are some cases of sheer laziness or inertia, but it is clear that the wide range of differences in educational programs, financial support, and physical facilities are represented in the variations in approach. It is the purpose of this section to consider the procedures and sources of information on research findings in educational media areas employed by the respondents to the questionnaire. The discussion below follows the breakdown of the "Questionnaire" for Question 1. (Appendix).

A. DIRECT PERSONAL COMMUNICATION

Conversations with colleagues at work. - It is a well known fact that specialists in any field of endeavor (unless it involves governmental security or commercial competition) confer with their colleagues in respect to the research that they may be doing or of which they have knowledge. As a matter of fact, it has been shown in other investigations of the habits of researchers that one of the first steps taken by a specialist is to ask others engaged in experimentation or study of the progress of their work. When it is possible to provide this information, unless there is a reason for not doing so, information is generally given to the inquirer. Consultations between individuals engaged in interweaving research are frequent and expected. It is therefore not surprising that the 85 respondents reported that conversation with colleagues was an important source of information on research findings: 31 (35.5%) indicated such conversation as being "very useful," and 37 (43.5%) found this source "useful." Eleven (13%) indicated that such conversation was "relatively useless" and 6 did not comment on the question.

Since approximately 80% of the group reported that conversations with colleagues were important in keeping abreast of research findings, it is worth observing at this point that this suggests that published information is either inadequate or delayed. This is not contrary to findings in other fields, and is merely stated as a fact as to this point. Moreover, it is related to other items in the questionnaire taken up later in this section.

Correspondence with colleagues, or receipt of research reports or reprints. - Obviously, face-to-face or telephone conversations with colleagues represent only two ways of discussing questions in the field of educational media. It had been established also that correspondence, either through the asking of questions or receiving reprints of articles (as well as pre-prints), has been useful to researchers. Of the 85 respondents, 38 (44.7%) found this procedure "very useful," and 31 (35.5%) "useful." Only 6 persons regarded this procedure as "relatively useless," and 10 offered no comment. Again, 80 % of the group regarded this approach as effective.

One respondent circled "research reports" as "the most important of all" approaches. This is noted because it represents an area of discussion that is prominent in other fields as well as in education generally.

Papers heard at meetings or conferences. - Only 16 (18.8) of the 85 respondents indicated that papers given at meetings or conferences were "very useful" in acquainting them with findings on research projects. However, 54 (63.5) found such meetings "useful." 10 of the respondents did not regard them as useful, and 5 made no comment.

It is difficult to establish the usefulness of papers given at meetings or conferences, since they are so interwoven with conversations with individuals, pre-prints, mimeographed reports distributed prior to meetings, and other interacting activities or materials. Undoubtedly, the final publications presented at conferences or meetings become part of the overall machinery of instruction and orientation of workers in the field.

Discussions with colleagues at meetings or conferences. - Individual conversations at meetings or conferences, as well as small group discussions, undoubtedly provide a basis for the exchange of information on new developments in educational media. That this is true is reflected in the 32 (37.6%) answers evaluating such discussions as "very useful," and in the 40 (47%) classifying them as "useful." Thus, approximately 85% of the respondents praised this approach in their efforts to learn of new developments.

Information gained from attending workshops. - Since there is less likelihood for large segments of the professional workers in educational media to attend workshops, perhaps it is not surprising that 23 of the 85 respondents (29%) did not comment on this item. Another 27 (31%) reported that such workshops were "relatively useless." 11 (12.9%) found them "very useful," and 24 (28.2%), "useful."

This is not the proper place to discuss "workshops" as a source of information on new developments. However, in a variety of fields, particularly in science and technology, workshops have assumed a significant position as a basis for group solutions of problems and the relating of research findings to practical problems.

Academic courses and seminars. - Related to the workshop and other methods of approach discussed above are formal academic courses and seminars. Again, it would appear that these would attract only a limited number of individuals. In some ways, however, such approaches represent an important spoke in the wheel of information, since the individuals who are directly involved in them are stimulated to aid others. Because of the nature of the selected sample of individuals who responded to the questionnaire, it is not unexpected that only 4 persons reported such approaches as "very useful." 13 others evaluated them as "useful," and 14 considered them "relatively useless." Of the total of 85 respondents, 54 (63.5%) either made no comment or considered the item "Not appropriate" or "not applicable" to their procedures. In passing, it may be observed that when individuals directly engaged in research are also actively teaching, the formal course or seminar may take on quite a different meaning.

Memoranda or reports sent by supervisors. - 8 of the respondents were of the opinion that sending memoranda or reports by supervisors represented a "very useful" method of informing them of developments; 12 others considered it a "useful" way. 38 made no comment on this point, and 27 (31.8%) regarded it as "relatively useless."

Materials sent by librarian. - In science and industry, especially in recent years, it has been found that an effective method of keeping researchers and practitioners informed of developments is to have the special librarian keep a close watch of the literature of the field and to route relevant material to proper personnel. In ordinary library practice, this procedure has not been regarded as a customary procedure to keep personnel informed. It is not surprising, therefore, to find that only 9 (10%) of the respondents found this a "very useful" approach, and 15 (17.6%) considered it "useful." 27

(31.8%) evaluated it as "relatively useless," and 34 (40%) made no comment.

That approximately 72% of the respondents would regard the librarian (or library) as an insignificant source of information on educational media studies perhaps is not startling in view of the greater usefulness of other procedures. It may be speculated, however, that the finding is related to the frequent dissociation of the library from audio-visual or educational media activity. That is, other agencies in a particular institution or setting may be responsible, rather than the librarian, for routing of such information.

Book announcements or review copies. - The previous comment is related somewhat to the finding that 12 (14.1%) and 31 (36.4%) considered book announcements and review copies of books as "very useful" and "useful," respectively. 23 (29%) regarded this as "relatively useless," and 19 (22.3%) made no comment. It is apparent that if publishers or authors sent copies of materials directly to interested individuals, a smaller load would be placed upon the librarian to provide such materials.

Equipment and supply firms. - Only 5 respondents considered the sending of brochures and other matter by equipment and supply firms as "very useful" in informing them of developments. 23 (29%) regarded this type of communication as "useful," and 33 (33.8%) as "relatively useless." 24 persons did not comment, or stated that such a source was "not applicable to their needs."

Although there was no specific note made of advertisements which appear in audio-visual, educational, psychological, or other journals concerning equipment used in instruction, it is apparent that such displays are often noticed by practitioners and others in their examination of the literature. It is not possible to estimate this impact upon the personnel in the field. Undoubtedly, it is related to some of the other methods and procedures employed, and may sometimes be the precipitating basis for inquiries.

Information provided by manufacturers' representatives. - The question of information provided at special sessions set up by manufacturers' representatives also cannot be disassociated from other factors which may precipitate inquiries concerning developments. Only 3 persons indicated that this was a "very useful" way of learning about research activity, and 10 responded that it was "useful." A group of 33 (38.8%) classified it as "relatively useless," and 24 (28.2%) made no comment.

Although no special item was provided for display of equipment at conferences or meetings, it is obvious as one examines the programs of meetings that stimulation of interest in equipment (which is one of the results of research in educational media) is probable. In this respect, personnel in this field would not be different from those in other professional occupations.

Other forms of direct personal communication. - The respondents varied considerably in their use of other forms of direct personal communication, and their answers in some ways overlapped other categories in the questionnaire. 9 of the respondents found other ways of personal communication "very useful" and 7 found this approach "useful." Included among the other personal approaches were: colleagues in other departments (e.g., "people in both mathematics and education were very helpful to us in providing leads to relevant research on mathematical motivation (with or without media intervention) for a study we are currently planning"), informal social situations, telephone conversations, current and former students, visits to persons working with language laboratories, visits with audio-visual administrative assistant in State Office of Public Instruction, active research committee of an agency, and directors of research projects.

Undoubtedly, personnel interested in media research use all of the possible avenues of approach to those who may have useful knowledge.

B. READING COMPLETE, ORIGINAL TEXTS OF MATERIALS

In the previous section, attention was given to the approaches involving personal communication. It is impossible to separate completely personal from other approaches, but it was deemed desirable to estimate the extent to which individuals in the educational media areas gained information through examination of original studies, such as dissertations, theses, or other research reports. A problem of direct interest was the source of such studies, particularly as they appeared in published form.

Separate monographs. - Of the 85 respondents, 38 (44.7%) reported that reading original printed or mimeographed monographs represented a "very useful" way of keeping abreast of new developments in educational media. 22 (25.8%) considered this a "useful" approach, and 6 rated it as "relatively useless." 19 did not comment or reported that this approach was not used.

It is worth noting that "separate monographs" represent in general the culmination of extended studies, whether they are completed as academic dissertations or theses or as studies as part of one's responsibility or assignments in a particular position. They represent the type of material that usually is acquired by specialists in the field and by libraries. They are the materials that are exchanged among researchers in special areas. That 71% of the group of respondents would consider them "useful" or "very useful" suggests that "separate" publication is a significant source of information.

In serial publications of Office of Education. - 15 (17.6%) of the respondents reported serial publications of the U.S. Office of Education as "very useful" in furnishing full texts on research in educational media. 24 (28.2%) indicated that these were "useful," and 19 (22.3%) that they were "relatively useless." 27 did not comment, or reported that they did not use this source.

Serial publications of other governmental agencies. - Since it has been earlier demonstrated that the studies of problems involving educational media have been distributed in various governmental publications, it appeared desirable to isolate present useful sources. 11 (12.9%) reported that these were "very useful," and 17 (20%), that they were "useful." 22 (23.5%) indicated that such sources were "relatively useless," and 37 (46%) either made no comment, or indicated that "access to these was often poor." One respondent observed that he did not believe that a person was able to check the various publications of governmental agencies interested in the special areas of educational media, and suggested a centralized bibliographical service for relevant materials.

Serial publications of the NEA. - This question overlapped somewhat with a query below dealing with journals of audio-visual communication, since the AVCR (Division of Audio Visual Instruction of the NEA) falls into the category of a serial publication. Nevertheless, it may be reported that 21 (24.7%) respondents indicated such sources as "very useful," and 20 (23.5%) as "useful." 16 (18.8%) found them "relatively useless," and 28 (32.9%) reported "no use," "have not used," or "occasionally."

Serial publications of educational institution. - The publications of universities and other educational institutions apparently do not provide much in the way of guidance for the group of respondents: 7 (8%) persons found them "very useful," and 28 (32.9%) "useful." 19 (22.3%) reported that they were "relatively useless," and 39 (45.9%) either did not comment, or noted that they "did not receive them" or "did not use them." Reference to useful publications included those of Pennsylvania State University, University of Oklahoma, University of Wisconsin, and Harvard University, as well as "quarterly bulletins of various institutions."

Other journals of education. - Only 13 (15.3%) considered other educational journals as "very useful". Ten (11.8%) found them "relatively useless," and 37 (43.5%) made no comment, or indicated that they "did not receive them."

In the general review of the dispersal of information on educational media, it was found that a number of educational journals contained texts of studies. Journals cited by the respondents include the School Review, College English, Nations Schools, Phi Delta Kappan, Journal of Educational Psychology, Journal of Educational Sociology, Harvard Educational Review, Elementary School Journal, Educational Research Bulletin, Journal of Higher Education, Journal of Experimental Education, Journal of Educational Research, Educational and Psychological Measurement. It was observed that the relevant articles to problems of educational media in these sources were infrequent.

Journals of psychology. - The general survey of courses also found that journals in the field of psychology were likely to contain reports of studies on educational media. Twenty-two (25.8%) reported that such journals were "very useful," and 21 (24.7%) that they were "useful". They were "relatively useless" to 10 (11.8%) and 32 (37.6%) made no comment, or indicated that they neither received them nor used them. It should be noted that there is a close relation between the publications included under this category and those associated with journals of educational institutions or professional organizations. Publications of the American Psychological Association, such as the Journal of Social and Abnormal Psychology, were cited by the respondents as particularly helpful. Other titles cited include Journal of Social Psychology, Journal of Educational Psychology, Journal of Applied Psychology, Psychological Abstracts, American Psychologist, Psychological Monographs.

Journals of audio-visual communication. - Forty (47%) of the respondents categorized journals of audio-visual communication as "very useful" as sources of information, and 10 others (11.8%) as "useful". Seven reported that they were "relatively useless," and what appears to be a surprisingly large group, 28 (32.9%) observed that they either did not receive or use them, or made no comment. As noted earlier, under publications of the NEA, the Audio-Visual Communication Review is cited as a title of great importance in the field. As one respondent wrote: "Audio-Visual Communication Review is the principal instrument for information..." Other titles cited include the Educational Screen and Audio-Visual Guide, Audio-Visual Instruction, Journal of Communication, Speech Monographs, NAEB Journal, and Journal of Broadcasting. Some of the respondents who indicated that they did not either receive or use journals in the audio-visual communication fields for complete reports of studies provided evidence that they had access to them through other approaches. Again, however, this interweaving of the various sources of information is suggestive of a looseness in the procedures of dissemination of information to the profession as a whole. It may be claimed by those who have immediate access to complete reports that journals are not examined or that they are not useful.

Other journals. - On the basis of the general survey of sources, it was found that articles or reports (full texts) sometimes appeared in journals outside of the areas that might be classified strictly as "psychological," "educational," or "audio-visual". These are sociological, administrative, and journalistic publications. Thirteen (15.3%) specified such journals as "very useful" for full texts, and 23 (27%) classified them as "useful". Six-teen (18.8%) rated them as "relatively useless," and 33 (38.8%) indicated that they were not used, or did not comment. One respondent, a sociologist, introduced an interesting problem relating to the reading of specialists: he commented that he did not read journals outside of his field. In so far as educational media are concerned, it has been demonstrated that one is likely to miss considerable material by adhering to the literature of a single field when there is overlap with so many other fields.

Yearbooks of professional societies. - Actually, the yearbooks of professional societies represent a narrow source for full texts of research reports, in that except for publications of the National Society for the Study of Education and the Association for Student Teaching, no other organizations were noted as either "very useful" sources, (by 9 respondents), or "useful" sources (by 16 respondents). The Yearbook of the NSSE for 1949 was devoted to the studies in educational media.

In various sciences and technical fields, yearbooks bringing together new material on their respective subjects provide a guide to the practitioner and investigator. They are not a substitute for a quick information service, but they may well be a part of a fabric of record and organization of the content of the field.

Other publications that print full texts. - Among the other publications that print full texts of research reports relating to educational media as classified "very useful" by 8 respondents, and "useful" by 11, were "dissertations associated with research projects or grants," research reports of commercial organizations (sometimes reported in periodicals designed for practitioners, such as Printer's Ink, Advertising Age, etc.), and separately issued reports by individuals. Undoubtedly, some of these overlap with the type of publication discussed above under the rubric of "separate monographs".

An examination of a large group of reports assembled at Pennsylvania State University, however, revealed that the full reports may appear in "out-of-the-way" publications. A chief source is publication by the commercial organization that had sponsored the study.

C. READING THE SUMMARIES OR REVIEWS OF RESEARCH

Although there is a close relationship between full texts and summaries or reviews of them in an individual's examination of research in a particular field, it was thought that a separation of inquiries would provide the investigators with distinctive data concerning the two approaches. As some of the respondents noted, it was sometimes difficult to separate these. One wrote, in regard to abstracts, but this statement applies to this whole section:

> /Much the same applies here as indicated /in the previous questions/. However, abstracts, if done by competent persons, are much easier for us to use, because they require less time in analysis. Such abstracts might be used in their entirety in certain instances, or they might be further compressed.

Whether the results of research finally appear in textbooks or treatises, encyclopedias, or in other sources, dissemination of information is one of the major aims of supporters of research projects. Summaries or reviews are important aids to researchers, if they are, as the respondent noted above, "done by competent persons."

Treatises (including textbooks) and handbooks. - In the established disciplines of knowledge, it is recognized that some of the important sources of information are treatises, textbooks, and handbooks. In science and technology, the tradition of special hand-apparatus in the form of comprehensive coverages of the field has been an important factor not only in the teaching of the discipline but in the practice of it. The works of Dale, Brown, Lewis, Hacleroid, Kinder, Sands, and Wittich and Schuller were cited by the respondents as containing analytical content of research in the various areas of educational media. The Hovland series from Yale, Personality and Persuasibility, the mass media reports of the Division of Audio-Visual Instruction of NEA, the Ford Foundation reports, and the surveys of the literature by Kumata were cited in addition to the specific treatises or volumes prepared by individuals. Some of the respondents indicated that the material was likely to "come out too late".

Of the 85 respondents, 11 indicated that such sources were "very useful," and 25, "useful". Thirty-eight made no comment, and 11 noted that the source was "relatively useless".

Encyclopedia of Educational Research. - Nineteen (22.3%) of the respondents evaluated the Encyclopedia of Educational Research as a "very useful" source of information for summaries or abstracts of research in educational media. Twenty-one (24.7%) reported it as a "useful" source, and 33 (38.8%) had no comment, or considered the material as "too late". Twelve (14%) regarded it as a "relatively useless" source. Comments from the latter group suggested that this source was not the answer to the needs of practitioners and researchers engaged in active work.

Publications of the U. S. Office of Education. - The publications of the Office of Education were not regarded as basic sources, although 9 (10.6%) regarded them as "very useful" and 36 (42.3%) as "useful". Fifteen respondents (17.6%) did not consider them useful, and 25 (29.4%) made special observations or did not comment. Two of the latter group suggested that the publications were likely to come out too late, and three others indicated that "occasional" use was made of them.

Other governmental agencies. - It was apparent in the survey of the sources of information on educational media that the military services of the country were among the groups actively engaged in research in the applications of techniques or equipment. The Naval Training Development Center, Office of Naval Research, the Human Resources Research Organization of the Signal Corps, the United States Department of Agriculture, and the Special Services Center and the Pennsylvania State University research program for the Navy were among the agencies or projects cited by the respondents as providing reports that were useful to the personnel concerned with educational media. However, only 7 of the respondents indicated that these were "very useful," and 17, that they were "useful". Twenty-two (25.8%) checked the column indicating that they were "relatively useless," and 39 (45.8%) either made no comment or reported "occasional" usefulness.

Publications of the NEA. - It is clear that the NEA has a basic interest in the research in educational media, and through its Division of Audio Visual Instruction it has kept alive a vital concern for developments. Twenty (23.5%) of the respondents reported that for summaries and comment on research the publications of the NEA were "very useful," and 33 (38.8%) that they were "useful". Ten considered them "relatively useless" for this purpose, and 22 (25.8%) indicated that they did not use them or did not comment.

Publications of other educational associations. - Educational institutions are apparently a meager source of summary information on research in educational media. The Newsletter, issued by Edgar Dale of the Bureau of Educational Research, Ohio State University, represents one of the few efforts to synthesize or summarize information on various research reports in the field. Some university graduate student publications, and the quarterlies of some institutions, particularly those which list or comment on studies by "Offices of Institutional Research". Thirteen of the respondents reported that such summaries were "very useful," and 21 others that they were useful. Fourteen did not regard them as useful sources, and 37 (43.5%) made no comment.

Other journals of education. - In respect to journal publication, reference was made to the several journals that were cited for including full reports of studies. Those indicated as containing summaries included the *Nations Schools*, *Phi Delta Kappan*, *American School Board Journal*, *Educational Forum*, *College English Bulletin of College Composition and Communication*, and the *Bulletin of American Association of University Professors*. Only three of the respondents found these "very useful" for summaries, but 32 (37.6%) found them "useful".

Yearbooks of professional societies. - Out of the total of 85 responses, 26 (30%) reported that the yearbooks of professional societies were "very useful" (12) or "useful" (14) for summaries or reviews of research. The yearbooks of the NSSE and the NASSP were specified as important sources.

Newspapers. - Newspapers were regarded as useful for summaries or reviews of reports. Ten respondents regarded these as "very useful," and 17 categorized them as "useful". The *New York Times* and the *Christian Science Monitor* were singled out especially as sources for reviews. Note was made of the educational pages of newspapers in Chicago, Indianapolis, and other cities. Newspapers were regarded as "leads" to reports.

Separately printed (or mimeographed project reports). - In addition to the journals of audio-visual communication, separately issued project reports were regarded as a major source of summaries and reviews of research. Thirty-two (36.9%) reported these materials as "very useful", and 19 (23.3%) specified that they were "useful". Thus, a total of 59.7% regarded these as important in providing information on research. Included among the specific items were Allen's and Kumata's report on educational television, and studies on television prepared by the institutions concerned (Pennsylvania State University, Purdue University, University of Houston, San Francisco State College, Cincinnati Public Schools, Indiana University, Ohio State University, University of Southern California, Michigan State University, University of Illinois, Miami University, Tufts University, Stanford University, University of Utah, St. Louis Public Schools, U. S. Navy SDC, U. S. Office of Education, and the Ford Foundation).

Other sources of summaries or reviews.- The comments on "other sources" for summaries or reviews revealed again the large number of possibilities for information on reports. Ten respondents observed that in addition to the sources mentioned in the above categories, "other sources" were "very useful"; 13 others reported that these sources were "useful". Among specific items were the Allen, Hoban and Van Ormer, and Kumata reviews, the NAEB Research Fact Sheets, UNESCO reports and papers on mass communication, the McGraw-Hill reports and related research services, reports and bibliographies of the Advertising Research Foundation, articles summarizing research in various areas such as government publications on mathematics by Brown, and Finn's summary of television research. Reports of the Ford Foundation were also cited as containing reviews and summaries.

Other procedures employed to keep abreast of research.- This question apparently served as a reminder of various categories of sources already specified in the above queries. Commercial research and abstracting organizations, direct access to individuals, librarians, books on the subject, the Research Advisory Board of the National Educational Television and Radio Center, Dissertation Abstracts, Psychological Abstracts, and Sociological Abstracts were cited. The conclusion suggested is that researchers in the field have a wide variety of procedures and sources available to them, if they can manage to locate them.

Features of particularly useful sources. - The respondents were asked to describe the characteristics of the most useful sources, since it was believed that such observations might have implications for a centralized information service. Sixty-three of the respondents commented on this question. Because of the lengthy statements that were made in response to this question, and because of the similarity of these replies to those made to Question 5 B, asking for suggestions for future improvements, the actual comments have been combined into a single group appearing on pages 73-76 of this report. It may be observed that there were no fixed patterns in respect to what is expected of effective sources, and this may be attributed to the variety of backgrounds, purposes, and present activities of the respondents. Undoubtedly, some of the present sources taken together do a fair job in providing the information sought by the personnel in educational media. However, it may be speculated that the actual assortment of sources, the selectivity and uncertainty of coverage, and the lack of uniformity in presentation supports the view that a systematic approach to research in educational media might remove the present disorganized character of the reporting instruments. Undoubtedly, whatever the system, there will be direct approaches to individuals, but it is conceivable that much waste in time and energy could be eliminated. A national service could provide the direction and coordination of existing instruments and aid in upgrading them.

2. SOURCES FOR DISCOVERING STUDIES ON PARTICULAR ASPECTS OF EDUCATIONAL MEDIA

A second approach to the general question of how workers in areas of educational media obtain information on studies is to examine their use of the various sources now available. Thus, question 2 in the questionnaire asked:

> When you need to discover whether or not some particular aspect of the newer educational media has been subjected to investigation, which of the following indexes, abstracting journals, or bibliographies, if any, do you now employ to identify reports about this kind of research?

Following is a report on the findings in respect to the practices described by the respondents.

A. CONSULTATION OF PERIODICAL INDEXES

Periodical indexes represent a first source of guidance to those seeking information to studies in special fields. Indexing has reached a high point in terms of coverage, although there has been much criticism of gaps, overlapping in coverage and the limitations of the entries themselves. When related to the actual recording of the sample of studies in the Allen review, this criticism applies to the areas of educational media.

By and large the Education Index and the Reader's Guide to Periodical Literature have been the major aids in indexing studies in educational media. Other sources that were "useful" for small groups of respondents, were the Applied Science and Technology (8), Public Affairs Information Service (10), International Index (8), and Business Periodical Index (6). Four others found the International Index "very useful" for isolating studies.

In addition to specific indexing sources, mention was made of the following titles: Bibliographic Index, Agricultural Index, and the Economic Index as sometimes providing information.

One respondent wrote:

"We find that indexes of particular periodicals are much more useful than general indexes of any sort. For example, we find the index of research digest carried in the AVCR (DAVI) to be very helpful. In other words, there are certain reputable organizations in the mass media field which we know are involved in research (or are attempting to obtain research results) and we turn most often to their publications and reports. The general indexes are not adequate normally for our purposes."

One respondent observed that there is "no satisfactory source; it's hit or miss," and another commented that "important aspects have not been investigated." These remarks represent the point of view of those who are not willing to admit that either the research that is being done or its controls are significant.

B. CONSULTATION OF ABSTRACTING SERVICES

As several respondents indicated, it is not possible to separate one source from others, and depending upon the need for information, a variety of sources may be consulted. Both indexes and abstracting services are used for the same purpose or search on occasion. However, an effort was made to have the respondents single out the abstracting services most useful to them. Comments by respondents confirm the high degree of usefulness of Psychological Abstracts for identifying reports or studies in educational media. Twenty-eight (33%) of the respondents found this source "very useful," and 17 (20%), "useful". Sociological Abstracts and Social Science Abstracts were included in both the "very useful" and "useful" columns.

Amont other sources that were cited include Dissertation Abstracts, NAEB Research Reports, and Chemical Abstracts. Reference to journals, such as the AVCR and the Journal of the Society of Motion Picture and Television Engineers, as sources for abstracts or full reports was contained in the reports of the respondents.

C. CONSULTATION OF BIBLIOGRAPHIES OF GOVERNMENT PUBLICATIONS

There is minimal guidance for workers in educational media in present bibliographies of government publications. The Monthly Checklist of State Publications, the Monthly Catalog, and the U. S. Government Research Reports were not reported as among the most fruitful sources of help. The largest percentages of responses indicating either "relatively useless" or no comment are indicative of the comparatively minor role played by those sources in guiding those interested in research in educational media. Other bibliographies or lists of government publications included those issued by the Office of Naval Research, Human Resources Office.

As a matter of fact, the responses relating to government indexes or catalogs are similar to those found in the study of the actual location of studies, as discussed earlier. One respondent commented that "as a whole, this group of publications requires more searching time than appears to be justified by what is found.

D. CONSULTATION OF LISTS OF DISSERTATIONS

Since master's theses and doctoral dissertations have been identified as types of research studies in the various areas of educational media, they were given separate attention in the questionnaire. The distribution of the responses to the question concerned with the use of lists of bibliographies of dissertations for locating studies in educational media show that by and large, the Molstad lists, "Doctoral Dissertations in Audio-Visual Education," in the AVCR (fall of 1956, and winter of 1958), represented the major vehicle for locating studies at the doctoral level. Twenty (23.5%) reported that they consulted this publication and found it to be a "very useful" source; a similar number checked it as "useful". Those frequently consulted were the Index to American Doctoral Dissertations, Doctor's Dissertations Under Way in Education, and Research Studies in Education. One respondent referred to "Doctoral Dissertations in Radio and Television," in the Journal of Broadcasting. A number of respondents noted Dissertation Abstracts as a source consulted, although it does not include all studies. A respondent wrote, "Abstracts written by the authors themselves is a feature of Dissertation Abstracts I enjoy." One respondent wrote: "More useful (than dissertation lists) are the (few) dissertations which have as their purposes the pulling together of research in various fields, e.g. Norbert Roderman, "The Development of Academic Research in Radio and TV for the First Half of the Twentieth Century" (Northwestern University, 1951)."

Another respondent's comment on graduate dissertations is worth quoting:

> "We are kept fairly well informed about graduate dissertations being prepared in this field through our members, representing most of the major colleges and universities doing work in the field of mass media. In this way we have knowledge of the research in progress and of findings which will be helpful to us or others. However, here again, we are not adequately staffed or financed to use this information and these materials as we would like to, and as they deserve. We receive many manuscripts and digests of graduate research containing information which should be made available on a wide scale to our membership and others interested, but we simply are not in a position to handle them. Many times we must return such manuscripts with our regrets, knowing full well that the manuscript will be 'lost' on a library shelf at some institution and those needing the information contained therein will be without it. Further, within a few months another graduate student at another university will undertake the same research, simply because he is not aware that the work has already been done, but could not be distributed due to the lack of any central agency equipped to do the job adequately."

This is a significant statement in terms of the basic aims of this study. The view that information is not being made available to those who are interested and need to know is specified in it. However, it is not easy to estimate the extent to which this is true and to describe actual situations that have arisen.

E. CONSULTATION OF SUBJECT BIBLIOGRAPHIES

The statement in the preceding section in respect to the aid provided by graduate students who describe research progress in specific areas, such as television and radio, over a time span, is related to the general problem of identification of studies through subject headings or classifications. The distribution of responses to the query concerning Allen's review of research in areas of communications, identification of studies most frequently in some sources as the Audio-Visual Communication Review, Hoban and van Ormer, and Kumata. The inventory by Kumata was noted as being "very useful" by the largest group of respondents, 38 (42.3%), and as "useful" by 15 (17.6%). Only the respondents considered Kumata "relatively useless," and only small groups were critical of the other sources listed above.

In addition to these major sources for identification—actually "for background," as many characterized their usefulness—are the bibliographies of Larsen and Runden and McCluskey. Other sources suggested by respondents include such titles as Shepherd's Index to Western Speech, The Audio-Visual Reader (Kinder and McCluskey), the "Coordinate Index of Training Aids Research," issued by the Special Devices Center, Port Washington, Long Island, New York, and bibliographies on television and radio, and, on children and television, issued by the National Association of Educational Broadcasters (NAEB).

F. CONSULTATION OF INDIVIDUALS AND AGENCIES

In the series of inquiries in the first part of the questionnaire attention was given to the approaches of workers in the field of educational media, in so far as information concerning studies might be gained from colleagues, other individuals, and agencies of various types.

In respect to the reasons why respondents did not check specific sources in the questionnaire, the data show that the individuals involved relied primarily upon librarians, colleagues, and assistants. Some of the respondents, of course, use all of these and other sources as well at various times. Among "other" sources were audio-visual centers (e.g., Visual Instruction Service at Iowa State University), general educational departments of universities, other pertinent departments (psychology, journalism, etc.) of educational institutions, commercial organizations in the field, and graduate students working on advanced topics or literature searches.

A few of the respondents gave reasons for not checking that suggested the somewhat chaotic bibliographic condition of the field. The "lack of any regularized source of information on teaching machines and self-instructional programs," "lacking awareness" of some of the items, and the difficulty of keeping up with the variety of sources. One respondent wrote:

"I have felt the need to know, but have been at a loss to be able to secure the information without traveling to a university or enrolling in courses of study to learn about the research and developments in the various areas of the field."

Another noted:

"I do not consider that I have made extensive, continuing efforts to keep up in this field. The attempts have been periodic rather than continuing. The only exception has been collecting relevant bibliographies compiled by various sources."

A third commented that "I rarely seek such data. When I do, I generally ask key, knowledgeable people..." This remark, of course, is related to the general approach of researchers to go directly to those engaged in research.

The reference to the use of the help of librarians rather than working directly with sources by 15 of the respondents may appear to be low, but the figure should be considered in relation to direct use of library materials (indices, abstracts, encyclopedias, etc.) by the individuals or their assistants.

3. METHODS OF INITIATING RESEARCH

The third major area of the questionnaire was concerned with the methods by which researchers initiated their studies. The question was stated as follows:

> When making literature searches such as envisaged in Question 2, are you likely to initiate your search from the point of view of the medium... the audience...the subject matter...the effect...?

It is obvious that these are not discrete approaches and overlap considerably, as several respondents indicated, but together they represented the major approaches of researchers in the field as described in the literature. One respondent wrote: "Since my particular speciality is the production of film and television programs for education, my emphasis may be, at any time, on any one of these four points of view. However, they are necessarily indivisible in the process of designing effective educational experiences." There were other, similar comments.

However, the several efforts at classifications and subject headings revealed that these were major categories in breaking down the studies appearing in the fields. Despite complaints of overlapping among the several aspects, the "medium" represented, so far as the respondents were concerned, the approach most often used, and was checked by 33 persons. This aspect has been given most emphasis in current index entries. The "effect" was checked by 28 respondents; "subject matter," by 18; and "audience," by 12. One respondent observed that all of these were limited in their usefulness to him. "I use none of these," he wrote. "What is needed is research on the nature of the instructional process in each of the new media. This is very scarce." What is lacking at present, according to this respondent, is a sound pattern of identification of the aspects of research studies that would get beyond the surface elements of medium, audience, and subject. Isolation of effects has been a difficult task on any basis; it is even more difficult to characterize in terms of the instructional or learning process. One of the most useful discussions of this problem of categorizing research is by Hoban who wrote:

> In generalizing research findings, or for that matter, in dealing with them on an individual basis, it is necessary to make criteria of confidence explicit. Otherwise, acceptance or rejection of research findings is likely to be based on what Whorf (28) calls "natural logic," i.e., a series of implicit concepts or propositions which admit of no alternatives, explanation, or explication.[1]

Hoban, who is concerned in this discussion with a summary of educational film research findings has approached his problem by isolating theoretical criteria of confidence, and then applying them in a case illustration, by commenting on the available summaries and unwelcome reifications, by noting the substantive residue of research findings, by examining the possibilities of extrapolation, and by outlining forms and concepts for future research.[2] All of these issues are important in the definition of the scope of a media research information service, since identification of effects is basic.

4. FORMS OF INFORMATIONAL SOURCES

The respondents were also asked to consider the question of the form of informational sources in media research. In a sense, this question duplicated earlier queries which sought opinions on the ways in which researchers proceeded in their approach to studies in the field. In order of number of positive checks, the respondents indicated most interest in shorter abstracts of individual studies, (reporting the nature of the study and the significant findings), critical (evaluative) summaries or reviews of related studies, informational summaries or reviews, and complete texts. The tabulations of the responses show no particular pattern, except to emphasize the present disorganized character of the field. As one respondent wrote: "This is a very slipshod field in many ways." But personal ingenuity in locating for relevant studies is noted in the following statement:

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[1] Charles F. Hoban, "The Usable Residue of Educational Film Research," in New Teaching Aids for the American Classroom: A Symposium... (Stanford: The Institution for Communication Research, 1960), p. 95.

[2] Ibid., pp. 95-113.

> When a quick yet thorough research is being made, I use the bibliographical references to find at least one relevant, well documented report. I proceed then to select from its bibliography, and from the bibliographies of succeeding studies, etc., etc. In a very short time, the major and more significant studies are usually located.

Undoubtedly, this is one way of searching for and finding useful studies. Repeated throughout the country, it represents the same type of duplicated effort found in other burgeoning fields. With educational media at a new threshhold in meeting the needs of an expanded program of education on all levels, this appears to be an unsystematic as well as an obsolete approach to a serious problem.

5. EVALUATION OF SITUATION AND SUGGESTIONS FOR IMPROVEMENT

A final series of points included in the questionnaire was concerned with the evaluation of the present situation and possible suggestions or recommendations for the future.

Thoroughness and promptness of present indexes, etc. Only two respondents thought that in terms of thoroughness of coverage, present indexes, abstracting journals, bibliographies, and other sources were "excellent"; 26 regarded them as "good"; 32 , as "fair"; and 12, as "poor". 13 of the respondents did not check the item.

In respect to promptness, only two respondents regarded present sources as "excellent", and 11 checked them as "good." However, 35 evaluated them as "fair", 24, as "poor", and 13 did not check the item.

Substance. In respect to the competence with which existing sources informed researchers sufficiently well about the substance of the findings, there were mixed opinions. An almost even number (32, "yes", and 33, "no") indicated that articles which reviewed or summarized research were effective. In the appraisal of abstracting journals, 24 reported affirmatively, and 31 checked "no". 46 indicated that annotated bibliographies were not effective, and 10 specified that they were. The large number of negative opinions, in addition to the number that did not check either category, suggests that present efforts to cover investigations are doing only a partial job in presenting the substance of research.

Classifications and subject headings. Undoubtedly, there is a close connection between the organization of the material and the presentation of the substance of findings of studies. The current approaches to classification and subject analysis of studies are not as systematic as they need to be in order that their content and findings are presented most effectively. The several efforts of various individuals, such as Allan, Carpenter-Greenhill-Hartman, Hoban and Van Ormer, Kumata, Moldstad, Parsey, and others have been extremely helpful and merit commendation. However, they have represented only parts of the various segments of educational media. Only one person thought that the present organization of the materials was "excellent", and 17 others specified it as "good". 38 rated it "fair", and 11, "poor". The generalization that occurs to the consultants is that this aspect of bibliographic control requires considerable work if an efficient information service is to be established.

6. SUGGESTIONS OR RECOMMENDATIONS FOR THE FUTURE

In addition to the specific questions included in the form, the respondents were asked to write in any suggestions or recommendations for the future. Since these comments are not easily reducible to statistics, they are presented as part of this section concerned with the possible elements to be included in a centralized information service. They are given in the actual words of the respondents.

Identification of the Discipline

"It would be helpful to have a clearing house "standard form" which would help identify the originating discipline — sociology, anthropology, marketing, journalism, etc., so as to provide the field with a more complete picture of what is going on in the major fields interested in newer media."

"One of the principal difficulties in gathering information is the time consumed in pursuing "leads" in many directions simultaneously. This is a consequence of much duplication of effort in gathering and reporting. There is need for a central information finding service for research in the newer media. There will always be duplication of effort in finding and reporting; a lot of it is necessary, but much of it is wasteful. Lack of promptness in reporting is especially aggravating. In many instances this problem may have its roots in insufficient financing to bring off a report with something approaching dispatch. Here again cooperative efforts might put a central service on a firm financial footing and speed the process of reporting. Dissemination of research findings to a wide audience in language which is understood by intelligent people (but not necessarily highly trained research specialists) would be most helpful. At present much research in the newer media would appear to be an end in itself, without reference to application. Much of the trouble here lies in bad (unclear) writing. A central information service might well employ a group of "translators" who would lend directness and clarity to research without diluting the research message itself."

"Biggest problem is the time and difficulty involved in searching a multiplicity of sources — more time than most people can give. A central referencing and prompt abstracting service with an excellent referencing system would be most helpful. Original reports could be obtained when necessary."

"It is my opinion that much more concentrated effort needs to be placed on:

(a) experimental results of aids used in all fields at all levels — secondary and elementary.
(b) a cross media approach which integrates material on the bases of how people learn will do much to convince the average teacher of the value of aids — perhaps research in this field is needed.
(c) textbook as teaching aids are not integrating; some are not even including other aids. I would suggest that separate lists be made to indicate books without additional aids — and those with aids included."

"All media research should: (1) be available in one place; (2) be reported early; (3) be subdivided by type, i. e., TV Film, Utilization, etc.; (4) be reported in brief form with location of original research."

"Periodic brief summaries of research studies — by areas of study. Objective, concise findings and results."

"It would be helpful to have research evaluated by experts operating like critics to point up fallacies in research techniques, etc. Often, one is left with a feeling that "research" has been done to prove a point rather than to discover truth about a medium or technique."

"I am constantly in need of knowing what is being done and what is completed in new research in all areas of radio and television; bibliographies or announcements of research completed and in progress can help me most. Complete research reports are most useful to me."

"Publish annual bibliographies (annotated) in each media field.

An expanded Audio-Visual Communication Review should help.

Maintain some sort of reporting service on what is going on and get it into all of the journals.

Much greater distribution of reprints, mimeo reports, etc."

"Need for a central place set up to provide "complete" bibliographies for the tremendous variety of problem areas, etc. involved in media research. So many disciplines both theoretical and applied, so many specialities are involved, that all material must be classified in considerable detail. Advantage should be taken of all whether conceived in educational, psychological, advertising, etc. terms. Classification set up by Pennsylvania State University should be very helpful as a starter. "Keeping abreast" function probably can be handled by improving current publications and by having central organization release annotated bibliographies in select areas, periodically. However, very important to have central clearing house, utilizing best possible classification and cross-references since variety of problems is so great and so many different disciplines are concerned."

"My area (Radio-TV) requires these essentials of research:

1. Significant new topics of research. (Too much research is conducted in Radio-TV on already proven topics, e.g., Comparative effectiveness of classroom vs. TV teaching or learning.)
2. Speed (Time) in reporting what is done or initiated.
3. Cross-indexing by media and specific subject matter.

Time is a most important factor in Radio and TV for the newspapers daily expand horizons, and increase or decrease problems. A centralized, well indexed, annotated bibliography would appear to be the best answer."

"I would submit that the exchange of information on the improvement and use of the new educational media will continue to be poor until specialists in the various media begin to think in terms of communication theory — more broadly, less specifically in terms of one medium.

Clearing houses for information would be, of course, desirable, especially if expert abstracting of material, perceptive inter- and intra-disciplinary indexing, and scholarly relationships in terms of communication theory were part of such a clearing house function.

Eventually there should be a "Communications Abstract" of a type noted in the answer to question 4. Such a service might be based at a university, using the model of the Chemical Abstracts (based at the Ohio State University) which effectively services the entire world with continuing service in the field of chemistry.

The importance of a communications abstract at this particular time, of course, is that it would significantly shape what has come to be recognized as an emerging discipline. In these terms the potential importance of such a center cannot be estimated since it could give direction to an entire field through its selection, abstracting and classification services."

"A single abstracting journal giving comprehensive coverage would appear to be the major need, provided abstracts could be published rapidly."

"There is too much "private" publication in this field. A general journal is desirable, although the fault is not with the journals so much as the authors. Otherwise it is not the researchers who complain anyway. They know that searching the literature is work. One more special-interest journal for the lazy will not help much, I am afraid. It is not avenues for publication this field lacks. It is competent research personnel."

"A truly interdisciplinary Media journal which includes original research reports and annotated bibliographies of research as represented in other professional journals, foundation and government reports, etc."

"We have found Abstracts of English Studies very useful during the past two years. It might serve as a model to be improved upon."

"We would like some kind of file of punched cards with abstracts on them so that we could sort, say, on any of the variables on design, on author, etc."

"If other reference works could follow the very useful pattern set by Hoban and Van Ormer in Instructional Film Research, 1918-1950, this would be excellent."

"Perhaps the U. S. Office of Education could publish a bulletin about once a year which would describe research studies in some detail. The bulletin could then be distributed to libraries, professional educators, and so on. It is possible that many educators do not have sufficient time or interest to systematically seek out research findings in this field (i.e., from a variety of sources.)."

"The Kumata type report should be given annually. Someone should be found to continue his work in the television field."

"We need indexing of articles by variables in the communication process -- Source, Message (including media), Audience and Situation or Context (Utilization techniques, etc.). The problem to date is that much research is oriented around the medium as the principal variable. Also, not enough attention has been given to the interrelationship of these variables. Perhaps we need (in addition to the conventional medium, subject matter, etc., indexes) an index titled Communication Process (variables) that would make an attempt at ferreting out those studies that try to relate one variable to another (a given source as affecting two audiences with basically different characteristics) in a selected communication, or a communication sequence. Research in this area of media use will continue to give us inconsistent results since most studies are not dealing with the more basic or generic factors that determine communication effects."

"Critical summaries of all studies, well indexed but indicating expert judgment as to soundness of research procedures and significance of findings together with information as to where complete report may be obtained."

"I have the unmistakable impression that Education Index, Psychological Abstracts, and all the rest are less than complete in their coverage of media research. So much of the work currently is published no more than semi-formally and this undoubtedly aggravates the situation. A clearing house (that never sleeps) would seem to be the only answer promising quick returns. In the long haul, I expect the field will gain sophistication and the interested parties will begin to act more like the respectable researchers of old. They will publish in the recognized 'status journals.' "

"Good studies in the Psychology of Learning are not carried in the Readers Guide or the Education Index. Also, advertising, art, social influences, etc. are hard to find, although they apply directly to the audio-visual field."

"The "teaching machine" field will grow more rapidly than any other new educational medium in the immediate future. We need some one on this literature, issuing bibliographies regularly, right from the outset."

"Existing search materials (indexes, classifications, bibliographies, etc. could, of course, be improved. However, experience suggests that the search problem is most serious at the point of access to reports. There just are not enough copies to be available in all the places in which they might be used. With the facilities and indexes now available, it is simple to locate titles. It is relatively difficult to get the reports to which the titles refer. The urge to refer to and use research may often evaporate in the face of the difficulty of getting the research reports in hand."

→ "Adequate distribution of original research reports."

"I have recently tried to find my way around in the teaching machine field and had found the road quite rocky. There appears to be no good means of communication, although a company-sponsored journal is about to appear. In other fields involving the new media the situation is quite different. I believe a journal devoted to critical summaries of research and other developments in the new media might be quite useful."

SUMMARY

The preceding analysis of the questionnaire returns is provided to supplement the actual figures for the specific queries as distributed in Appendix. Research in educational media has grown to such an extent that experts on various parts of it have endeavored to summarize and review accomplishments and further needs. However, the testimony of the group of individuals who cooperated so fully in completing their questionnaires adds up to a rather spotty picture in respect to the provision of information at the present time. In the section of the report concerned with the problems, the possibilities, and the program of an information center, the coordination of current activities and services was specified. On the basis of the questionnaire returns, visits to the various installations, and the potential research programs that are planned in various institutions and agencies, the consultants believe that unless there is a coordinated center to harness the variety of approaches to the problem, there will be continued waste and a low level of performance. The investment of dollars in research in educational media grows each year. The time has come to establish an organization to examine and evaluate this research, and, in so doing, provide a blueprint for further research that will have a direct effect upon the betterment of educational programs on all levels in the schools of the United States.

IV

EXPLORATORY CLASSIFICATION SYSTEMS

An examination of the various sources which identify, describe, or analyze the results of educational media research reveals the existence of a great variety of approaches, and the lack of a universally accepted nomenclature. The efforts of Allen, Carpenter-Greenhill-Hartman, Hoban and Van Ormer, Kumata, Moldstad, Parsey, and others, to develop their research summaries or bibliographical treatments in a systematic manner generally have resulted in patterns of topical organization that resemble, or in some instances actually constitute classification systems. The consultants have found it of great benefit to have access to these sources, as well as to the pertinent parts of standard library classifications (Library of Congress, Dewey Decimal), and to certain special classification schedules, such as J. W. Stein's _A Classification for Communications_.[1] However, because of their restricted purposes or special points of view, the available classifications did not appear to be adequate either for the wide range of educational media research, nor for the larger pattern of communications. This is particularly true of the Stein classification, which is perceptive in introducing relationship devices, but which, in general, is restricted to non-educational fields.

During the past dozen years, studies of the needs of research workers in other disciplines have revealed the inadequacy of traditional systems that employ hierarchical classification of topics. These traditional systems, of necessity, limit the variety of access points available to the searcher; and, by reason of their inflexibility, they may conceal useful relationships rather than reveal them. Early in the course of the investigation it became clear to the consultants that research people working in the area of educational media would be equally ill-served by a classification based on a fixed subordination of topics. In their talks with educational media specialists, the consultants were able to identify four major areas of interest for the retrieval of information: the medium, the audience with which the medium was used, the program or subjects communicated to the audience, and the nature of the research. In a traditional classification system, one of these four areas would constitute the major approach to information, with the other three represented as topics subordinated to the primary one. Thus, if the primary arrangement were by medium, anyone searching for information about audience, programs, or research methods, would find the material scattered under a variety of media groupings.

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[1] (New York: School of Library Service, Columbia University, 1952)

It was apparent both from conversations with educational media specialists, and from replies to the questionnaire, that an arrangement of this kind would not be satisfactory. At one time or another, even for the same individual, any one of these four major areas might represent the primary point of attack on a problem. For this reason, in designing an exploratory classification system, the consultants endeavored to set up a schedule that would permit a direct approach to be made to any one of the four major areas, with any or all of the other three being made subordinate to the primary one at the time of searching. Classifications embodying this principle, called (or miscalled) "faceted" classifications, have received much attention from classification builders over the past few years. Their merits are that they permit the association of ideas more readily than do traditional systems, and that they make possible at the time of searching, the coordination of whatever topics are appropriate for the particular search.

The classification schedules (Expanded form, and Abridged form) submitted by the consultants, and appearing in this chapter, are properly called exploratory. Neither time nor opportunity was available for extensive testing of them in connection with large samples of the existing research reports. Therefore it would be unrealistic to suppose that either of the forms could be used, without further alteration and adjustment, for organizing the collection of research proposals at the Educational Media Branch, or for arranging systematic summaries of research or bibliographic compilations. However the compilers believe that these exploratory classification systems provide a framework within which necessary modifications for specific purposes can be made.

It will be observed that the first, and larger of the two schedules, is not strictly limited to educational media research topics, but includes subjects in the broader fields of education and the communication arts. This reflects the difficulty of isolating many of the aspects of the communication arts from either education or educational media. Many topics of research interest in entertainment, commercial advertising, journalism, political campaigning, and other elements of cultural, social, and economic life are interwoven closely with those of education itself. This is the reason why it was proposed earlier in this report that the Information Service might eventually expand its efforts in the direction of including the whole range of communication arts. When this step is taken, the larger of the exploratory classification systems appearing in this chapter may serve as the basis for organizing the material.

Because it seems desirable to start the Information Service on a limited basis, the consultants have proposed that it would be useful at first to work on the level of arrangement restricted as closely as possible to educational media research, ignoring, or giving only secondary attention to research relating to broader aspects of education, or to communication. For this purpose, a "Simplified" classification schedule has been provided. This, too, is to be regarded as an exploratory effort, for the same reasons as those applying to the larger schedule. The simplified schedule is based upon the more inclusive one, so that an eventual change-over from the simpler to the more complex should be possible. This is true, even though it will be seen that different notations are used in the two schedules.

The notation used for the larger of the two schedules was adopted primarily for the reason that it revealed the internal organization of the system more clearly than other kinds of notation might have done. In the view of the consultants, the basic arrangement of the schedule is the important element, not the notation. Indeed, if the system is as flexible as it is expected to be, the overall arrangement could be followed even though any one of several possible notational systems were to be adopted. By way of illustrating this point, the simplified classification schedule, without departing from the overall pattern of the larger schedule, has been provided with a notation that would be appropriate for use with electronically sorted punched cards (specifically the 80-column IBM general purpose card). Similar modifications of notation could be made within the existing framework to accommodate the system to any of the existing non-conventional systems of coordination (edge-punched cards, Uniterm, Peek-a-Boo, Zatocoding, and the like).

In the Proposal for the Information Service, the consultants suggest that the Unit Manager should explore the varieties of coordinating systems to determine which seems best suited in its mechanical requirements to the needs of the Service.

EXPLORATORY

CLASSIFICATION SCHEDULE

FOR

RESEARCH

IN

EDUCATIONAL MEDIA AND COMMUNICATION

AUDIENCE FACET
MEDIA FACET
PROGRAM FACET
RESEARCH FACET
INDEX

AUDIENCE
FACET

AUDIENCE FACET (A)

Contents:

Aspect A — DEMOGRAPHIC (AA/) . . . . .p. A 2 - 3

Variable a: Age Characteristics (AA/aa. - AA/az.)
b: Sex Characteristics (AA/ba. -AA/bz.)
c: Ethnic Characteristics (AA/ca. - AA/cz.)
d: Religious Characteristics (AA/da. - AA/dz.)
e: Economic Characteristics (AA/ea. - AA/ez.)
f: Occupational Characteristics (AA/fa. - AA/fz.)
g: Marital Characteristics (AA/ga. - AA/gz.)
h: Educational Characteristics (AA/ha. - AA/hz.)
i-z: Other Demographic Characteristics (AA/ia. - AA/zz)

Aspect B — ENVIRONMENTAL (AB/) . . . . p. A 4

Variable a: Audience-size Characteristics (AB/aa. - AB/az.)
b: Geographical Environment Characteristics (AB/ba. - AB/bz.)
c: Instructional Environment Characteristics (AB/ca. - AB/cz.)
d-z: Other Environmental Characteristics (AB/da. - AB/zz.)

Aspect C — PSYCHOLOGICAL (AC/) . . . . p. A 5 - 6

Variable a: Intelligence (AC/aa. - AC/az.)
b: Other Preconditions to Learning (AC/ba. - AC/bz.)
c: Learning Activities (AC/ca. - AC/cz.)
d: Achievement in Acquisition of Facts (AC/da. - AC/dz.)
e: Achievement in Acquisition of Skills (AC/ea. - AC/ez.)
f: Achievement in Acquisition of Understanding (AC/fa. - AC/fz.)
g: Achievement in Changing Attitudes and Opinions (AC/ga. -AC/gz.
h: General Responses to the Learning Situation (AC/ha. - AC/hz.)
i-z: Other Psychological Characteristics (AC/ia. - AC/zz.)

Aspects D through Z - OTHER ASPECTS (AD/ - AZ/) . . . . p. A - 6

AUDIENCE FACET (A)

Aspect A - DEMOGRAPHIC (AA/)

Variable a: AGE CHARACTERISTICS (AA/a-)

AA/aa.	Infants
AA/ab.	Children
AA/ac.	Adolescents
AA/ad	Young Adults
AA/ae.	Mature Adults
AA/af.	The Aged
AA/ag.-az	Other (Including combinations)

Variable b: SEX CHARACTERISTICS (AA/b-)

AA/ba.	Males
AA/bb.	Females
AA/bc.	Both Males and Females
AA/bd.-bz	(Unused rubrics)

Variable c: ETHNIC CHARACTERISTICS (AA/c-)

AA/ca.	White
AA/cb.	Yellow
AA/cc.	Red
Aa/cd.	Brown
AA/ce	Black
AA/cf.-cz.	Other (Including combinations)

Variable d: RELIGIOUS CHARACTERISTICS (AA/d-)

AA/da.	Christian
AA/db.	Jewish
AA/dc.	Islamic
AA/dd.-dz.	Other (Including combinations)

Variable e: ECONOMIC CHARACTERISTICS ('A/e-)

AA/ea.	Low Income Group
AA/eb.	Middle Income Group
AA/ec.	High Income Group
AA/ed.-ez.	Other (Including combinations)

Variable f: OCCUPATIONAL CHARACTERISTICS (AA/f-)

AA/fa.	Unskilled
AA/fb.	Semi-skilled
AA/fc.	Skilled
AA/fd.	Professional
AA/fe.-fz.	Other (Including combinations)

Aspect A - DEMOGRAPHIC (AA/) Continued

Variable g: MARITAL CHARACTERISTICS (AA/g-)

AA/ga.	Unmarried
AA/gb.	Married
AA/gc.	Previously Married (Including Separated; Widowed; Divorced; etc.)
AA/gd. -gz.	Other (Including combinations)

Variable h: EDUCATIONAL CHARACTERISTICS (AA/h-)

AA/ha.	Pre-school
AA/hb.	Kindergarten
AA/hc.	Elementary School
AA/hd.	Junior High School
AA/he.	High School
AA/hf.	Junior College (Includes Community Junior Colleges)
AA/hg.	Undergraduate College, Four-year. (Includes Undergraduate Four-year Community Colleges)
AA/hh.	Fifth-year Bachelors Program
AA/hi.	Masters Program
AA/hj.	Doctoral Program
AA/hk.	Post-Doctoral Program
AA/hl.	Armed Services Program
AA/hm.	Vocational School Program
AA/hn.	Professional School Programs
AA/ho.	Religious School Programs
AA/hp.	Teachers College Programs
AA/hq.	Adult Education Programs
AA/hr.	General Public as Audience
AA/hs.	Teachers as Audience
AA/ht. -hz.	Other (Including combinations)

Variable i - z OTHER DEMOGRAPHIC CHARACTERISTICS (AA/i - AA/z -)
To be subdivided as needed

Aspect B - ENVIRONMENTAL (AB/)

Variable a: AUDIENCE-SIZE CHARACTERISTICS (AB/a-)

AB/aa.	Less than 10 people
AB/ab.	10 - 30
AB/ac.	30 - 50
AB/ad.	50 - 100
AB/ae.	100 - 500
AB/af.	500 - 1000
AB/ag.	1000 - 10,000
AB/ah.	10,000 - 100,000
AB/ai.	100,000 - 1,000,000
AB/aj.	More than 1,000,000
AB/ak. -az.	Other (Including combinations)

AUDIENCE FACET (A)

Aspect B - ENVIRONMENTAL (AB/) Continued

Variable b: GEOGRAPHICAL ENVIRONMENT CHARACTERISTICS (AB/b-)

AB/ba.	Local U.S. (city or town)
AB/bb.	State U.S.
AB/bc.	Regional U.S.
AB/bd.	National U.S.
AB/be.	Foreign Country (ies)
AB/bf.	International
AB/bg.-gz.	Other (Including combinations)

Variable c: INSTRUCTIONAL ENVIRONMENT CHARACTERISTICS (AB/c-)

AB/ca.	Home as educational locale
AB/cb.	Classroom as educational locale
AB/cc.	Lecture Hall or Auditorium as educational locale
AB/cd.	Monitor Room as educational locale
AB/ce.	Television or Radio Studio as educational locale
AB/cf.	Laboratory as educational locale
AB/cg.	Outdoor Assembly as educational locale
AB/ch.	Visit, Educational, as educational locale (Includes Excursions or Field Trips to Buildings, to Displays, to Scenes of Activities, to Scenes of Services, School journals, etc.)
AB/ci.	Nature Hike as educational locale
AB/cj.-cz.	Other (Including combinations)

Variables d - z: OTHER ENVIRONMENTAL CHARACTERISTICS (AB/d- AB/z-)
To be subdivided as needed

Aspect C - PSYCHOLOGICAL (AC/)

Variable a: INTELLIGENCE (AC/a-)

AC/aa.	General aspects of intelligence
AC/ab.	Low Intelligence
AC/ac.	Average Intelligence
AC/ad.	High Intelligence
AC/ae.-az.	Other (Including combinations)

Variable b: OTHER PRECONDITIONS TO LEARNING (AC/b-)

AC/ba.	Attention
AC/bb.	Motivation
AC/bc.	Attitude toward learning environment
AC/bd.	Attitude toward educational medium
AC/be.	Attitude toward teacher or communicator
AC/bf.	Preformed Opinions or Prejudices
AC/bg.-bz.	Other (Including combinations)

AUDIENCE FACET (A)

Aspect C - PSYCHOLOGICAL (AC/) Continued

Variable c: LEARNING ACTIVITIES (AC/c-)

AC/ca.	Adjusting of Apparatus
AC/cb.	Analyzing
AC/cc.	Assembling of Apparatus
AC/cd.	Creating (Includes writing composition, drawing, etc.)
AC/ce.	Discussing
AC/cf.	Listening
AC/cg.	Manipulating of Apparatus
AC/ch.	Memorizing
AC/ci.	Note-taking
AC/cj.	Practicing of Skills
AC/ck.	Reading
AC/cl.	Reciting
AC/cm.	Speaking
AC/cn.	Spelling
AC/co.	Synthesizing
AC/cp.	Typing
AC/cq.	Writing
AC/cr.-cz.	Other (Including combinations)

Variable d: ACHIEVEMENT IN ACQUISITION OF FACTS (AC/d-)

AC/da.	Immediate recall (General)
AC/db.	Immediate recall, Unassisted
AC/dc.	Immediate recall, Aided
AC/dd.	Immediate recognition (General)
AC/de	Immediate recognition, Visual
AC/df.	Immediate recognition, Vocal or Auditory
AC/dg.	Delayed recall (General)
AC/dh.	Delayed recall, Unassisted
AC/di.	Delayed recall, Aided
AC/dj.	Delayed recognition (General)
AC/dk.	Delayed recognition, Visual
AC/dl.	Delayed recognition, Vocal or Auditory
AC/dm.-dz.	Other (Including combinations)

Variable e: ACHIEVEMENT IN ACQUISITION OF SKILLS (AC/e-)

AC/ea.	Motor Skills (General)
AC/eb.	Motor Skills in adjusting apparatus
AC/ec.	Motor Skills in assembling apparatus
AC/ed.	Motor Skills in constructing apparatus
AC/ee.	Motor Skills in manipulating apparatus
AC/ef.	Perceptual Motor Skills (General)
AC/eg.	Perceptual Motor Skills in adjusting
AC/eh.	Perceptual Motor Skills in assembling
AC/ei.	Perceptual Motor Skills in constructing
AC/ej.	Perceptual Motor Skills in interpreting
AC/ek.	Perceptual Motor Skills in manipulating or performing
AC/el.-ez.	Other (Including combinations)

AUDIENCE FACET (A)

Aspect C - PSYCHOLOGICAL (AC/) Continued

Variable f: ACHIEVEMENT IN ACQUISITION OF UNDERSTANDING (AC/f-)

AC/fa.	General aspects of understanding
AC/fb.	Analysis of information
AC/fc.	Synthesis of information
AC/fd. -fz.	Other (Including combinations)

Variable g: ACHIEVEMENT IN CHANGING ATTITUDES AND OPINIONS (AC/g-)

AC/ga.	Attitudes and opinions about self
AC/gb.	Attitudes and opinions about economic conditions
AC/gc.	Attitudes and opinions about social conditions
AC/gd. -gz.	Other

Variable h: GENERAL RESPONSES TO LEARNING SITUATION (AC/h-)

AC/ha.	Effect on consumer's behavior
AC/hb.	Effect on student's behavior
AC/hc.	Effect on teacher's behavior
AC/hd.	Effect on administrator's behavior
AC/he.	Effect on sponsor's behavior
AC/hf. -hz.	Effect on members of other groups

Variables i - z: OTHER PSYCHOLOGICAL CHARACTERISTICS (AC/i- AC/z-)
To be subdivided as needed

Aspects D through Z - OTHER ASPECTS (AD/ - AZ/)
To be subdivided as needed

MEDIA

FACET

MEDIA FACET (M)

Contents:

Aspect A - TELEVISION (MA/) . . . . p. M3
- Variable a: Circuit Characteristics (MA/aa. - MA/az.)
- b: Frequency Characteristics (MA/ba. - MA/bz.)
- c: Station Characteristics (MA/ca. - MA/cz.)
- d: Audio Characteristics (MA/da. - MA/dz.)
- e: Chromatic Characteristics (MA/ea. - MA/ez.)
- f: Purpose Characteristics (MA/fa. - MA/fz.)
- g: Instrument Characteristics (MA/ga. - MA/gz.)
- h: Performance Characteristics (MA/ha. - MA/hz.)
- i-z: Other Characteristics (MA/ia. - MA/zz.)

Aspect B - MOTION PICTURES (MB/) . . . . p. M4-5
- Variable a: Audio Characteristics (MB/aa. - MB/az.)
- b: Chromatic Characteristics (MB/ba. - MB/bz.)
- c: Size Characteristics (MB/ca. - MB/cz.)
- d: Visual Dimension Characteristics (MB/da. - MB/dz.)
- e: Projection Characteristics (MB/ea. - MB/ez.)
- f: Screen Dimension Characteristics (MB/fa. - MB/fz.)
- g: Instrument Characteristics (MB/ga. - MB/gz.)
- h: Purpose Characteristics (MB/ha. - MB/hz.)
- i-z: Other Characteristics (MB/ia. - MB/zz.)

Aspect C - RADIO (MC/) . . . . p. M6
- Variable a: Modulation Characteristics (MC/aa. - MC/az.)
- b: Station Characteristics (MC/ba. - MC/bz.)
- c: Audio Characteristics (MC/ca. - MC/cz.)
- d: Instrument Characteristics (MC/da. - MC/dz.)
- e: Purpose Characteristics (MC/ea. - MC/ez.)
- f-z: Other Characteristics (MC/fa. - MC/zz.)

Aspect D - SOUND RECORDINGS (MD/) . . . . p. M7
- Variable a: Format Characteristics (MD/aa. - MD/az.)
- b: Speed Characteristics (MD/ba. - MD/bz.)
- c: Audio Characteristics (MD/ca. - MD/cz.)
- d: Instrument Characteristics (MD/da. - MD/dz.)
- e: Purpose Characteristics (MD/ea. - MD/ez.)
- f-z: Other Characteristics (MD/fa. - MD/zz.)

Aspect E - PROJECTED MOTIONLESS VISUAL IMAGES (ME/) . . . . p. M8-9
- Variable a: Format Characteristics (Me/aa. - ME/az.)
- b: Size Characteristics (ME/ba. - ME/bz.)
- c: Audio Characteristics (ME/ca. - ME/cz.)
- d: Chromatic Characteristics (ME/da. - ME/dz.)
- e: Visual Dimension Characteristics (ME/ea. - ME/ez.)
- f: Instrument Characteristics (ME/fa. - ME/fz.)
- g: Purpose Characteristics (ME/ga. - ME/gz.)
- h-z: Other Characteristics (ME/ha. - ME/zz.)

MEDIA FACET (M)

Contents:

Aspect F - NON-PROJECTED VISUAL IMAGES (MF/) . . . . p. M10-11
  Variable a: Format Characteristics (MF/aa. - MF/az.)
    b: Content Characteristics (MF/ba. - MF/bz.)
    c: Production Characteristics (MF/ca. - MF/cz.)
    d: Chromatic Characteristics (MF/da. - MF/dz.)
    e: Visual Dimension Characteristics (MF/ea. - MF/ez.)
    f: Audio Characteristics (MF/fa. - MF/fz.)
    g: Observational Characteristics (MF/ga. - MF/gz.)
    h-z: Other Characteristics (MF/ha. - MF/zz.)

Aspect G - DIRECT AURAL AND/OR VISUAL EXPERIENCE (MG/) . . . p. M12
  Variable a: Sight Characteristics (MG/aa. - MG/az.)
    b: Sound Characteristics (MG/ba. - MG/bz.)
    c: Tactile Characteristics (MG/ca. - MG/cz.)
    d: Form Characteristics (MG/da. - MG/dz.)
    e-z: Other Characteristics (MG/ea. - MG/zz.)

Aspect H - TEACHING MACHINES (MH/) . . . . p. M13
  Variable a: Teaching Machines in General (MH/aa. - MH/az.)
    b: Automatic Testing Devices (MH/ba. - MH/bz.)
    c: Automated Self-Instruction Devices (MH/ca. - MH/cz.)
    d: Language Laboratories (MH/da. - MH/dz.)
    e-z: Other (MH/ea. - MH/zz.)

Aspect I - CROSS MEDIA CHARACTERISTICS - COMBINATIONS (MI/) . . . . p. M14-16

Aspect J - CROSS MEDIA CHARACTERISTICS - COMPARISONS (MJ/) . . . . p. M17-19

Aspects K through Z - OTHER ASPECTS (MK/ - MZ/) . . . . p. M19

MEDIA FACET (M)

Aspect A - TELEVISION (MA/)

Variable a: CIRCUIT CHARACTERISTICS (MA/a-)

MA/aa.	Closed Circuit
MA/ab.	Open Circuit
MA/ac-az.	Other (Including combinations)

Variable b: FREQUENCY CHARACTERISTICS (MA/b-)

MA/ba.	VHF (Very High Frequency)
MA/bb.	UHF (Ultra High Frequency)
MA/bc-bz.	Other (Including combinations)

Variable c: STATION CHARACTERISTICS (MA/c-)

MA/ca.	Individual Station
MA/cb.	Network
MA/cc-cz.	Other (Including combinations)

Variable d: AUDIO CHARACTERISTICS (MA/d-)

MA/da.	Monaural
MA/db.	Binaural
MA/dc.	Stereophonic
MA/dd-dz.	Other (Including combinations)

Variable e: CHROMATIC CHARACTERISTICS (MA/e-)

MA/ea.	Black and White
MA/eb.	Color
MA/ec-ez.	Other (Including combinations)

Variable f: PURPOSE CHARACTERISTICS (MA/f-)

MA/fa.	Educational
MA/fb.	Entertainment (Includes Commercial and Advertising)
MA/fc.	Experimental
MA/fd-fz.	Other (Including Combinations)

Variable g: INSTRUMENT CHARACTERISTICS (MA/g-)

MA/ga.	Cameras
MA/gb.	Receivers
MA/gc.	Microphones
MA/gd.	Auxiliary Apparatus
MA/ge-gz.	Other (Including combinations)

Variable h: PERFORMANCE CHARACTERISTICS (MA/h-)

MA/ha.	Live Performance
MA/hb.	Kinescope Recording
MA/hc.	Videotape Recording
MA/hd-hz.	Other

Variables i - z: OTHER CHARACTERISTICS (MA/i- MA/z-)

To be subdivided as needed

M E D I A F A C E T (M)

Aspect B - MOTION PICTURES (MB/)

Variable a: AUDIO CHARACTERISTICS (MB/a-)

MB/aa.	Silent
MB/ab.	Audio elements in general
MB/ac.	Monaural Sound
MB/ad.	Binaural Sound
MB/ae.	Stereophonic
MB/af-az.	Other (Including combinations)

Variable b: CHROMATIC CHARACTERISTICS (MB/b-)

MB/ba.	Black and White
MB/bb.	Color
MB/bc-bz.	Other (Including combinations)

Variable c: FILM SIZE CHARACTERISTICS (MB/c-)

MB/ca.	8 mm.
MB/cb.	16 mm.
MB/cc.	35 mm.
MB/cd.	70 mm.
MB/ce-cz.	Other (Including combinations)

Variable d: VISUAL CHARACTERISTICS (MB/d-)

MB/da.	Visual elements in general
MB/db.	Two-dimensional
MB/dc.	Three-dimensional
MB/dd-dz.	Other (Including combinations)

Variable e: PROJECTION CHARACTERISTICS (MB/e-)

MB/ea.	Normal Projection
MB/eb.	Intra-reel Interruptions for Discussion, Comments, etc.
MB/ec.	Continuous-Loop Projection
MB/ed-ez.	Other (Including combinations)

Variable f: SCREEN DIMENSION CHARACTERISTICS (MB/f-)

MB/fa.	Normal screen proportions
MB/fb.	Wide screen
MB/fc-fz.	Other

Variable g: INSTRUMENT CHARACTERISTICS (MB/g-)

MB/ga.	Cameras
MB/gb.	Projectors
MB/gc.	Screens
MB/gd.	Sound Apparatus
MB/ge.	Auxiliary Equipment
MB/gf-gz.	Other (Including combinations)

(Continued)

Aspect B - MOTION PICTURES (MB/) Continued

Variable h: PURPOSE CHARACTERISTICS (MB/h-)

MB/ha.	Amateur
MB/hb.	Commercial (Advertising and public relations)
MB/hc.	Educational
MB/hd.	Commercial (Theatrical)
MB/he.	Experimental
MB/hf-hz.	Other (Including combinations)

Variables i - z: OTHER CHARACTERISTICS (MB/i- MB/z-)
To be subdivided as needed

M E D I A F A C E T (M)

Aspect C - RADIO (MC/)

Variable a: MODULATION AND WAVE CHARACTERISTICS (MC/a-)

MC/aa.	AM (Amplitude Modulation)
MC/ab.	FM (Frequency Modulation)
MC/ac.	Long Wave
MC/ad.	Short Wave
MC/ae-az.	Other (Including combinations)

Variable b: STATION CHARACTERISTICS (MC/b-)

MC/ba.	Individual Station
MC/bb.	Network
MC/bc-bz.	Other (Including combinations)

Variable c: AUDIO CHARACTERISTICS (MC/c-)

MC/ca.	Audio elements in general
MC/cb.	Monaural
MC/cc.	Binaural
MC/cd.	Stereophonic
MC/ce-cz.	Other (Including combinations)

Variable d: INSTRUMENT CHARACTERISTICS (MC/d-)

MC/da.	Microphones
MC/db.	Transmitters
MC/dc.	Receivers
MC/dd.	Speakers (Sound apparatus)
MC/de.	Auxiliary Apparatus
MC/df-dz.	Other (Including combinations)

Variable e: PURPOSE CHARACTERISTICS (MC/e-)

MC/ea.	Amateur
MC/eb.	Commercial and Advertising
MC/ec.	Educational
MC/ed.	Entertainment
MC/ee.	Experimental
MC/ef-ez.	Other (Including combinations)

Variables f - z: OTHER CHARACTERISTICS (MC/f- MC/z-)
To be subdivided as needed

MEDIA FACET (M)

Aspect D - SOUND RECORDINGS (MD/)

Variable a: FORMAT CHARACTERISTICS (MD/a-)

MD/aa.	Cylinder Recording
MD/ab.	Disc Recording
MD/ac.	Photographic Film Recording
MD/ad.	Wire Recording
MD/ae.	Flexible Belt Recording
MD/af.	Magnetic Tape Recording
MD/ag.	Thermo-Plastic Tape Recording
MD/ah-az.	Other (Including combinations)

Variable b: SPEED CHARACTERISTICS (MD/b-)

MD/ba.	8 rpm (revolutions per minute)
MD/bb.	16 rpm
MD/bc.	33 1/3 rpm
MD/bd.	45 rpm
MD/be.	78 rpm
MD/bf.	1 7/8 ips (inches per second)
MD/bg.	3 3/4 ips
MD/bh.	7 1/2 ips
MD/bi.	15 ips
MD/bj-bz.	Other (Including combinations)

Variable c: AUDIO CHARACTERISTICS (MD/c-)

MD/ca.	Audio elements in general
MD/cb.	Monaural
MD/cc.	Binaural
MD/cd.	Stereophonic
MD/ce-cz.	Other (Including combinations)

Variable d: INSTRUMENT CHARACTERISTICS (MD/d-)

MD/da.	Microphones
MD/db.	Belt Recorders
MD/dc.	Disc Recorders
MD/dd.	Film Recorders
MD/de.	Tape Recorders
MD/df.	Sound Apparatus (Speakers and Speaker systems)
MD/dg.	Record Players
MD/dh.	Auxiliary Apparatus
MD/di-dz.	Other (Including combinations)

Variable e: PURPOSE CHARACTERISTICS (MD/e-)

MD/ea.	Amateur
MD/eb.	Business Applications
MD/ec.	Educational
MD/ed.	Entertainment
MD/ee.	Experimental
MD/ef-ez.	Other (Including combinations)

Variables f - z: OTHER CHARACTERISTICS (MD/f- MD/z)

To be subdivided as needed

MEDIA FACET (M)

Aspect E - PROJECTED MOTIONLESS VISUAL IMAGES (ME/)

Variable a: FORMAT CHARACTERISTICS (ME/a-)

ME/aa.	Filmstrips
ME/ab.	Individual Slides
ME/ac.	Transparencies for Overhead Projector
ME/ad.	Material for Opaque Projector (Balopticon, etc. cf. ME/af. and ME/ag. below.)
ME/ae.	Microfilms
ME/af.	Microcards
ME/ag.	Microprints
ME/ah.	Microfiches
ME/ai.-az.	Other (Including combinations)

Variable b: SIZE CHARACTERISTICS (ME/b-)

ME/ba.	8 mm
ME/bb.	16 mm
ME/bc.	35 mm
ME/bd.	2" x 2"
ME/be.	3" x 4"
ME/bf.-bz.	Other (Including combinations)

Variable c: AUDIO CHARACTERISTICS (ME/c-)

ME/ca.	With sound accompaniment
ME/cb.	Without sound accompaniment
ME/cc.-cz.	Other (Including combinations)

Variable d: CHROMATIC CHARACTERISTICS (ME/d-)

ME/da.	Black and White
ME/db.	Color
ME/dc.-dz.	Other (Including combinations)

Variable e: VISUAL DIMENSION CHARACTERISTICS (ME/e-)

ME/ea.	Two-dimensional
ME/eb.	Three-dimensional
ME/ec.-ez.	Other (Including combinations)

Variable f: INSTRUMENT CHARACTERISTICS (ME/f-)

ME/fa.	Cameras (general)
ME/fb.	Cameras, Microfilm
ME/fc.	Cameras, Still picture
ME/fd.	Projectors (general)
ME/fe.	Projectors, Filmstrip
MF/ff.	Projectors, Opaque
MF/fg.	Projectors, Overhead
MF/fh.	Projectors, Slide
MF/fi.	Reading machines for microfilm, etc.
MF/fj.	Projection Screens
MF/fk.	Auxiliary Apparatus
MF/fl.-fz.	Other (Including combinations)

M E D I A F A C E T (M)

Aspect E - PROJECTED MOTIONLESS VISUAL IMAGES (ME/) Continued

Variable g: PURPOSE CHARACTERISTICS (ME/g-)

ME/ga.	Amateur
ME/gb.	Educational
ME/gc.	Commercial Applications
ME/gd.	Research Applications
ME/ge.-gz.	Other (Including combinations)

Variables h - z; OTHER CHARACTERISTICS (ME/h - ME/z)

To be subdivided as needed

MEDIA FACET (M)

Aspect F - NON-PROJECTED VISUAL IMAGES (NF/)

Variable a: FORMAT CHARACTERISTICS (NF/a-)

NF/aa.	Books (whole or part)
NF/ab.	Pamphlets
NF/ac.	Magazines
NF/ad.	Attached sheets
NF/ae.	Separate sheets
NF/af.	Chalkboards
NF/ag.	Posters
NF/ah.	Wall displays (Displays on portable screens, etc.)
NF/ai.	Globe (Geographical, etc.)
NF/aj. -az.	Other (including combinations)

Variable b: CONTENT CHARACTERISTICS (NF/b-)

NF/ba.	Text without illustrations
NF/bb.	Illustrations without text (With or without captions)
NF/bc.	Text and illustrations combined
NF/bd.-bz.	Other

Variable c: PRODUCTION CHARACTERISTICS (NF/c-)

NF/ca.	Hand-written, or hand-lettered
NF/cb.	Typewritten
NF/cc.	Carbon copy
NF/cd.	Spirit-process copy (Hectograph, "Ditto", etc.)
NF/ce.	Mimeograph copy
NF/cf.	Letterpress copy (Printed with type)
NF/cg.	Offset-process copy (cf. NF/cs. below)
NF/ch.	Thermostatic-process copy (Thermofax, etc.)
NF/ci.	Electrostatic-process copy (Xerography, etc.)
NF/cj.	Photographic-negative copy (Negative Photostat, etc.)
NF/ck.	Photographic-print copy. (Includes ordinary photographic prints and enlargements, Positive Photostats, Blueprints, etc.)
NF/cl.	Music score
NF/cm.	Drawings (Charts, Diagrams, Graphs, Maps, Sketches, etc.)
NF/cn.	Painting (Original or copy)
NF/co.	Woodcut copy (Includes line engravings on wood)
NF/cp.	Linoleum-cut copy
NF/cq.	Wood-engraving copy
NF/cr.	Metal-engraving copy (Includes "Prints" in general, except photographic; Copper or Steel engraving; Aquatint; Etching; Drypoint; Mezzotint; Stipple; etc. See below for Metal line-cut, NF/cu; Halftone, NF/cv; and Gravure, NF/cw.)
NF/cs.	Lithograph copy (This number is for pictures. Use NF/cg. for textual materials)
NF/ct.	Silk-screen-process copy
NF/cu.	Metal line-cut copy
NF/cv.	Halftone-process copy
NF/cw.	Gravure-process copy
NF/cy.	Combination of production techniques
NF/cz.	Other production techniques

MEDIA FACET (M)

Aspect F - NON-PROJECTED VISUAL IMAGES (MF/) Continued

Variable d: CHROMATIC CHARACTERISTICS (MF/d-)

MF/da.	Black and White
MF/db.	Monochrome other than black and white
MF/dc.	Bicolor
MF/dd.	Multi-color
MF/de.-dz.	Other (Including combinations)

Variable e: VISUAL DIMENSION CHARACTERISTICS (MF/e-)

MF/ea.	Two-dimensional
MF/eb.	Three-dimensional
MF/ec.-ez.	Other (Including combinations)

Variable f: AUDIO CHARACTERISTICS (MF/f-)

MF/fa.	With sound accompaniment
MF/fb.	Without sound accompaniment
MF/fc.-fz.	Other (Including combinations)

Variable g: ADMINISTRATIONAL CHARACTERISTICS (MF/g-)

MF/ga.	Hand-held by student or observer
MF/gb.	Displayed by teacher or speaker
MF/gc.	Mounted on wall, screen, or stand
MF/gd.	Viewed through magnifying glass
MF/ge.-gz.	Other (Including combinations)

Variables h - z: OTHER CHARACTERISTICS (MF/h- MF/z-)
To be subdivided as needed

MEDIA FACET (M)

Aspect G - DIRECT AURAL, VISUAL, OR TACTILE EXPERIENCE (REALIA) (MG/)

Variable a: SIGHT CHARACTERISTICS (MG/a-)

MG/aa.	Sight not augmented
MG/ab.	Sight Optically augmented (Binoculars, Microscopes, etc.)
MG/ac.	Sight Electronically augmented (Radar, Electron Microscope, etc.)
MG/af.-az.	Other (Including combinations)

Variable b: SOUND CHARACTERISTICS (MG/b-)

MG/ba.	Sound not augmented.
MG/bb.	Sound Mechanically augmented (Megaphone, etc.)
MG/bc.	Sound Electronically augmented (Public Address System, etc.)
MG/bd.-bz.	Other (Including combinations)

Variable c: TACTILE CHARACTERISTICS (MG/c-)

MG/ca.	Sense of touch involved in the experience
MG/cb.	Sense of touch not involved in the experience
MG/cc.-cz.	Other (Including combinations)

Variable d: FORM CHARACTERISTICS (MG/d-)

MG/da.	Actual objects
MG/db.	Models
MG/dc.	Dioramas
MG/dd.	Mockups
MG/de.-dz.	Other (Including combinations)

Variables e - z: OTHER CHARACTERISTICS (MG/e- MG/z-)
To be subdivided as needed

MEDIA FACET (M)

Aspect H - TEACHING MACHINES (MH/)

Variable a: TEACHING MACHINES IN GENERAL (MH/a-)

MH/aa.	Design characteristics
MH/ab.	Programming
MH/ac.-dz.	Other

Variable b: AUTOMATIC TESTING DEVICES (MH/b-)

MH/ba.	Push-button devices
MH/bb.	Punchboards
MH/bc.	Chemically treated response materials
MH/bd.	Self-scoring devices
MH/be.-bz.	Other

Variable c: AUTOMATED SELF-INSTRUCTION DEVICES (MH/c-)

MH/ca.	For verbal and symbolic subject matter
MH/cb.	For non-verbal skills
MH/cc.	For diagnostic skills
MH/cd.-cz.	Other

Variable d: LANGUAGE LABORATORIES (MH/d-)

MH/da.-dz.	To be subdivided as needed

Variables e - z: OTHER (MH/e- MH/z-)
To be subdivided as needed

Aspects I through Z - OTHER ASPECTS
To be subdivided as needed.

MEDIA FACET (M)

Aspect I - CROSS MEDIA CHARACTERISTICS - COMBINATIONS (MI/)

Variable a: TELEVISION SUPPLEMENTING OR SUPPLEMENTED BY OTHER MEDIA (MI/a-)

MI/aa.	One kind of Television combined with another kir
MI/ab.	Television combined with Motion Pictures
MI/ac.	Television combined with Radio
MI/ad.	Television combined with Sound Recordings
MI/ae.	Television combined with Projected Still Pictur
MI/af.	Television combined with Books, or with Non-projected Still Pictures
MI/ag.	Television combined with Realia (Live classroom lectures, etc.)
MI/ah.	Television combined with Teaching Machines
MI/ai.-az	Television combined with other specific media

Variable b: MOTION PICTURES SUPPLEMENTING OR SUPPLEMENTED BY OTHER MEDIA (MI/b-)

(MI/ab).	Motion Pictures combined with Television. See: MI/ab.
MI/bb.	One kind of Motion Pictures combined with another kind
MI/bc.	Motion Pictures combined with Radio
MI/bd.	Motion Pictures combined with Sound Recordings
MI/be.	Motion Pictures combined with Projected Still Pictures
MI/bf.	Motion Pictures combined with Books, or with Non-projected Still Pictures
MI/bg.	Motion Pictures combined with Realia (Live classroom lectures, etc.)
MI/bh.	Motion Pictures combined with Teaching Machines
MI/bi.-bz	Motion Pictures combined with other specific media

Variable c: RADIO SUPPLEMENTING OR SUPPLEMENTED BY OTHER MEDIA (MI/c-)

(MI/ac).	Radio combined with Television. See: MI/ac.
(MI/bc).	Radio combined with Motion Pictures. See: MI/bc
MI/cc.	One kind of Radio combined with another kind
MI/cd.	Radio combined with Sound Recordings
MI/ce.	Radio combined with Projected Still Pictures
MI/cf.	Radio combined with Books, or with Non-projecte Still Pictures
MI/cg.	Radio combined with Realia
MI/ch.	Radio combined with Teaching Machines
MI/ci.-cz	Radio combined with other specific media

MEDIA FACET (M)

Aspect I - CROSS MEDIA CHARACTERISTICS - COMBINATIONS (MI/) Continued

Variable d: SOUND RECORDINGS SUPPLEMENTING OR SUPPLEMENTED BY OTHER MEDIA (MI/d-)

(MI/ad).	Sound Recordings combined with Television. See: MI/ad.
(MI/bd).	Sound Recordings combined with Motion Pictures. See: MI/bd.
(MI/cd).	Sound Recordings combined with Radio. See: MI/cd
MI/dd.	One kind of Sound Recordings combined with another kind
MI/de.	Sound Recordings combined with Projected Still Pictures
MI/df.	Sound Recordings combined with Books, or with Non-projected still pictures
MI/dg.	Sound Recordings combined with Realia
MI/dh.	Sound Recordings combined with Teaching Machines
MI/di.-dz	Sound Recordings combined with other specific media

Variable e: PROJECTED STILL PICTURES SUPPLEMENTING OR SUPPLEMENTED BY OTHER MEDIA (MI/e-)

(MI/ae).	Projected Still Pictures combined with Televisio See; MI/ae.
(MI/be).	Projected Still Pictures combined with Motion Pictures. See: MI/be.
(MI/ce).	Projected Still Pictures combined with Radio. See: MI/ce.
(MI/de).	Projected Still Pictures combined with Sound Recordings. See: MI/de.
MI/ee.	One kind of Projected Still Pictures combined with another kind
MI/ef.	Projected Still Pictures combined with Books, or with Non-projected Still Pictures
MI/eg.	Projected Still Pictures combined with Realia
MI/eh.	Projected Still Pictures combined with Teaching Machines
MI/ei.-ez.	Projected Still Pictures combined with other specific media

MEDIA FACET (M)

Aspect I - CROSS MEDIA CHARACTERISTICS - COMBINATIONS (MI/) Continued.

Variable f: BOOKS OR NON-PROJECTED STILL PICTURES SUPPLEMENTING OR SUPPLEMENTED BY OTHER MEDIA (MI/f-)

(MI/af).	Books, etc. combined with Television. See:MI/af.
(MI/bf).	Books, etc. combined with Motion Pictures. See: MI/bf.
(MI/cf).	Books, etc. combined with Radio. See: MI/cf.
(MI/df).	Books, etc. combined with Sound Recordings. See: MI/df.
(MI/ef).	Books, etc. combined with Projected Still Pictures. See: MI/ef.
MI/ff.	One kind of Books or of Non-Projected Still Pictures combined with another kind of Books, or Non-Projected Still Pictures
MI/fg.	Books, etc.combined with Realia
MI/fh.	Books, etc. combined with Teaching Machines
MI/fi.-fz.	Books, etc. combined with other specific media

Variable g: REALIA SUPPLEMENTING OR SUPPLEMENTED BY OTHER MEDIA (MI/g-)

(MI/ag).	Realia combined with Television. See: MI/ag.
(MI/bg).	Realia combined with Motion Pictures. See: MI/bg.
(MI/cg).	Realia combined with Radio. See: MI/cg.
(MI/dg).	Realia combined with Sound Recordings. See: MI/dg.
(MI/eg).	Realia combined with Projected Still Pictures. See: MI/eg.
(MI/fg).	Realia combined with Books or Non-projected Still Pictures. See: MI/fg.
MI/gg.	One kind or aspect of Realia combined with another kind or aspect
MI/gh.	Realia combined with Teaching Machines
MI/gi.-gz.	Realia combined with other specific media

MEDIA FACET (M)

Aspect I - CROSS MEDIA CHARACTERISTICS - COMBINATIONS (MI/) Continued

Variable h: TEACHING MACHINES SUPPLEMENTING OR SUPPLEMENTED BY OTHER MEDIA (MI/h)

(MI/ah).	Teaching Machines combined with Television. See: MI/ah.
(MI/bh).	Teaching Machines combined with Motion Pictures. See: MI/bh.
(MI/ch).	Teaching Machines combined with Radio. See: MI/ch.
(MI/dh):	Teaching Machines combined with Sound Recordings See MI/dh.
(MI/eh).	Teaching Machines combined with Projected Still Pictures. See: MI/eh.
(MI/fh).	Teaching Machines combined with Books, or Non-projected Still Pictures. See: MI/fh.
(MI/gh).	Teaching Machines combined with Realia. See: MI/gh.
MI/hh.	One kind of Teaching Machine combined with another kind.
MI/hi.-hz.	Teaching Machines combined with other specific media.

Variables i.-z. COMBINATIONS OF OTHER MEDIA (MI/i-MI/z)

To be subdivided as needed

M E D I A F A C E T (M)

Aspect J - CROSS MEDIA CHARACTERISTICS - COMPARISONS (MJ/)

Variable a: TELEVISION COMPARED WITH OR CONTRASTED TO OTHER MEDIA (MJ/a-)

MJ/aa.	One kind of Television compared with another kind
MJ/ab.	Television compared with Motion Pictures
MJ/ac.	Television compared with Radio
MJ/ad.	Television compared with Sound Recordings
MJ/ae.	Television compared with Projected Still Pictures
MJ/af.	Television compared with Books, or with Non-projected Still Pictures
MJ/ag.	Television compared with Realia
MJ/ah.	Television compared with Teaching Machines
MJ/ai.-az.	Television compared with other specific media.

Variable b: MOTION PICTURES COMPARED WITH OR CONTRASTED TO OTHER MEDIA (MJ/b-)

(MJ/ab).	Motion Pictures compared with Television. See: MJ/ab.
MJ/bb.	One kind of Motion Pictures compared with another kind
MJ/bd.	Motion Pictures compared with Radio
MJ/bd.	Motion Pictures compared with Sound Recordings
MJ/be.	Motion Pictures compared with Projected Still Pictures
MJ/bf.	Motion Pictures compared with Books, or with Non-projected Still Pictures
MJ/bg.	Motion Pictures compared with Realia
MJ/bh.	Motion Pictures compared with Teaching Machines
MJ/bi.-bz.	Motion Pictures compared with other specific media

Variable c: RADIO COMPARED WITH OR CONTRASTED TO OTHER MEDIA (MJ/c-)

(MJ/ac).	Radio compared with Television. See: MJ/ac.
(MJ/bc).	Radio compared with Motion Pictures. See: MJ/bc.
MJ/cc.	One kind of Radio compared with another kind
MJ/cd.	Radio compared with Sound Recordings
MJ/ce.	Radio compared with Projected Still Pictures
MJ/cf.	Radio compared with Books, or with Non-projected Still Pictures
MJ/cg.	Radio compared with Realia
MJ/ch.	Radio compared with Teaching Machines
MJ/ci.-cz.	Radio compared with other specific media

MEDIA FACET (M)

Aspect J - CROSS MEDIA CHARACTERISTICS - COMPARISONS (MJ/) Continued

Variable d: SOUND RECORDINGS COMPARED WITH OR CONTRASTED TO OTHER MEDIA (MJ/d-)

(MJ/ad).	Sound Recordings compared with Television. See: MJ/ad.
(MJ/bd).	Sound Recordings compared with Motion Pictures. See: MJ/bd.
(MJ/cd).	Sound Recordings compared with Radio. See: MJ/cd.
MJ/dd.	One kind of Sound Recordings compared with another kind.
MJ/de.	Sound Recordings compared with Projected Still Pictures
MJ/df.	Sound Recordings compared with Books, or with Non-projected Still Pictures
MJ/dg.	Sound Recordings compared with Realia
MJ/dh.	Sound Recordings compared with Teaching Machines
MJ/di.-dz.	Sound Recordings compared with other specific media

Variable e: PROJECTED STILL PICTURES COMPARED WITH OR CONTRASTED TO OTHER MEDIA (MJ/e-)

(MJ/ae).	Projected Still Pictures compared with Television. See MJ/ae.
(MJ/be).	Projected Still Pictures compared with Motion Pictures. See: MJ/be.
(MJ/ce).	Projected Still Pictures compared with Radio. See: MJ/ce.
(MJ/de).	Projected Still Pictures compared with Sound Recordings. See: MJ/de.
MJ/ee.	One kind of Projected Still Pictures compared with another kind
MJ/ef.	Projected Still Pictures compared with Books, or with Non-projected Still Pictures
MJ/eg.	Projected Still Pictures compared with Realia
MJ/eh.	Projected Still Pictures compared with Teaching Machines
MJ/ei.-ez.	Projected Still Pictures compared with other specific media

MEDIA FACET (M)

Aspect J - CROSS MEDIA CHARACTERISTICS & COMPARISONS (MJ/) Continued

Variable f: BOOKS OR NON-PROJECTED STILL PICTURES COMPARED WITH OR CONTRASTED TO OTHER MEDIA (MJ/f-)

(MJ/af).	Books, etc. compared with Television. See: MJ/af.
(MJ/bf).	Books, etc. compared with Motion Pictures. See: MJ/bf.
(MJ/cf).	Books, etc. compared with Radio. See: MJ/cf.
(MJ/df).	Books, etc. compared with Sound Recordings. See: MJ/df.
(MJ/ef).	Books, etc. compared with Projected Still Pictures. See: MJ/ef.
MJ/ff.	One kind of Books or of Non-Projected Still Pictures compared with another kind of Books, or Non-projected Still Pictures
MJ/fg.	Books, etc. compared with Realia
MJ/fh.	Books, etc. compared with Teaching Machines
MJ/fi.-fz.	Books, etc. compared with other specific media

Variable g: REALIA COMPARED WITH OR CONTRASTED TO OTHER MEDIA (MJ/g-)

(MJ/ag).	Realia compared with Television. See: MJ/ag.
(MJ/bg).	Realia compared with Motion Pictures. See: MJ/bg.
(MJ/cg).	Realia compared with Radio. See: MJ/cg.
(MJ/dg).	Realia compared with Sound Recordings. See: MJ/dg.
(MJ/eg).	Realia compared with Projected Still Pictures. See: MJ/eg.
(MJ/fg).	Realia compared with Books, or with Non-projected Still Pictures. See: MJ/fg.
MJ/gg.	One kind or aspect of Realia compared with another kind or aspect
MJ/gh.	Realia compared with Teaching Machines
MJ/gi.-gz.	Realia compared with other specific media

MEDIA FACET (M)

Aspect J - CROSS MEDIA CHARACTERISTICS - COMPARISONS (MJ/) Continued

Variable h: TEACHING MACHINES COMPARED WITH OR CONTRASTED TO OTHER MEDIA (MJ/h-)

(MJ/ah).	Teaching Machines compared with Television. See: MJ/ah.
(MJ/bh).	Teaching Machines compared with Motion Pictures. See: MJ/bh.
(MJ/ch).	Teaching Machines compared with Radio. See: MJ/ch.
(MJ/dh).	Teaching Machines compared with Sound Recordings. See: MJ/dh.
(MJ/eh).	Teaching Machines compared with Projected Still Pictures. See: MJ/eh.
(MJ/fh).	Teaching Machines compared with Books, or with Non-projected Still Pictures. See: MJ/fh
(MJ/gh).	Teaching Machines compared with Realia. See: MJ/gh.
MJ/hh.	One kind of Teaching Machine compared with another kind
MJ/hi.-hz.	Teaching Machines compared with other specific media

Variables i.-z. COMPARISONS OF OTHER MEDIA (MJ/i-MJ/z-)
To be subdivided as needed

Aspects K through Z - OTHER ASPECTS (MK/ - MZ/)
To be subdivided as needed

PROGRAM FACET (P)

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d: Financial Organization (PC/da. - PC/dy.)
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f: Individual, or Group of Individuals (PC/fa. - PC/fy.)
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h: Political Organization (PC/ha. - PC/hy.)
i: Professional Organization (PC/ia. - PC/iy.)
j: Public Service Organization (PC/ja. - PC/jy.)
k: Publishing Organization (PC/ka. - PC/ky.)
m: Technical Organization (PC/ma. - PC/my.)
n-z: Other Sponsors of Programs (PC/na. - PC/zz.)

Aspect D - CHARACTERISTICS OF PRESENTATION (PD/). . . . . p. P 12

Variable a: Effect of non-content factors (PD/aa. -PD/az.)
b: Observational characteristics (PD/ba. -PD/bz.)
c-z: Other characteristics of presentation (PD/ca. - PD/zz.)

Aspects E-Z - OTHER PROGRAM CHARACTERISTICS (PE/ - PZ/) . . . . p. P 12

PROGRAM FACET (P)

Aspect A - SUBJECTS OF EDUCATION, ENTERTAINMENT, INFORMATION (PA/)

(See Alphabetical Index)

Variable a: AGRICULTURAL SUBJECTS (PA/a-)

PA/aa.	Agricultural Subjects in General
PA/ab.	Agricultural Economics
	Agricultural Education as a Teaching Field. See: PA/eh.
PA/ac.	Agronomy. Field Crops. Soil Management.
PA/ad.	Animal Husbandry. Pets.
PA/ae.	Farming. Farm News. Market Reports.
PA/af.	Forestry. Arboriculture. Trees.
PA/ag.	Horticulture. Gardening. House Plants
	Veterinary Medicine. See PA/ks.
PA/ah.-az.	Other Agricultural Subjects

Variable b: ATHLETIC SUBJECTS (PA/b-)

PA/ba.	Athletics Subjects in General. Athletic programs.
PA/bb.	Physical Education. Exercising.
	Physical Education as a Teaching Field. See: PA/ey.
PA/bc.	Recreation.
	Recreation as a Teaching Field. See: PA/ey3.
PA/bd.	Sports and Games. Sport News. Sport Events.
PA/be.	Skilled Physical Performances. (Physical entertainment skills: Juggling; Balancing; Magic, etc.)
PA/bf.-bz.	Other Athletic Subjects

Variable c: BASIC COMMUNICATION SKILLS AS SUBJECTS (PA/c-)

PA/ca.	Basic Communication Skills in General
	Arithmetic. See PA/pm
PA/cb.	Reading. Remedial Reading
	Shorthand. See: PA/dk.
PA/cc.	Speech. Public Speaking. Pronunciation.
	Speech and Speech Correction as Teaching Fields. See: PA/ey7.
PA/cd.	Spelling.
	Typing. See: PA/dk
PA/ce.	Writing (Penmanship)
PA/cf.	Writing (Composition)
PA/cg.-cz.	Other Basic Communication Skills

PROGRAM FACET (P)

Aspect A - SUBJECTS OF EDUCATION, ENTERTAINMENT, INFORMATION (PA/) Continued

Variable d: BUSINESS AND COMMERCIAL SUBJECTS (PA/d-)

PA/da.	Business and Commercial Subjects in General
PA/db.	Accounting
PA/dc.	Advertising
PA/dd.	Banking.
	Business and Commercial Education as a Teaching Field. See: PA/ee.
PA/de.	Business Management
	Economics. See: PA/pf.
PA/df.	Finance. Investment. Stock Market Reports.
	Industrial Engineering. See: PA/fm.
PA/dg.	Industrial Relations
PA/dh.	Insurance
PA/di.	Marketing
PA/dj.	Office Supplies and Equipment.
PA/dk.	Secretarial Studies. Shorthand. Typing
PA/dl.-dz.	Other Business and Commercial Subjects.

Variable e: EDUCATION SUBJECTS (PA/e-)

PA/ea.	Education Subjects in General
PA/eb.	Agricultural Education as a Teaching Field
PA/ec.	Art Education as a Teaching Field
	Audio Visual. See: PA/ek.
PA/ed.	Biology as a Teaching Field
PA/ee.	Business and Commercial Education as a Teaching Field
PA/ef.	Chemistry as a Teaching Field.
PA/eg.	Counseling. Guidance.
PA/eh.	Early Childhood as a Teaching Field
PA/ei.	Earth Science as a Teaching Field
PA/ej.	Educational Administration
PA/ek.	Educational Media. Audio Visual.
PA/em.	Elementary Education as a Teaching Field
PA/en.	English as a Teaching Field
PA/eo.	Fine Arts as a Teaching Field
PA/ep.	Foreign Languages as a Teaching Field
PA/eq.	Geography as a Teaching Field
	Guidance. See: PA/eg.
PA/er.	Health Education as a Teaching Field
PA/es.	History as a Teaching Field
PA/et.	Home Economics as a Teaching Field
PA/eu.	Industrial Arts as a Teaching Field
	Kindergarten as a Teaching Field. See: PA/ex.
PA/ev.	Mathematics as a Teaching Field
PA/ew.	Music as a Teaching Field
PA/ex.	Nursery and Kindergarten as a Teaching Field
PA/ey1.	Physical Education as a Teaching Field
PA/ey2.	Physics as a Teaching Field
PA/ey3.	Recreation as a Teaching Field
PA/ey4.	Science as a Teaching Field
PA/ey5.	Secondary Education as a Teaching Field
PA/ey6.	Social Studies as a Teaching Field
PA/ey7.	Speech and Speech Correction as a Teaching Field
PA/ey8-ez.	Other Education Subjects. Other Teaching Fields

PROGRAM FACET (P)

Aspect A - SUBJECTS OF EDUCATION, ENTERTAINMENT, INFORMATION (PA/) Continued

Variable f: ENGINEERING SUBJECTS (PA/f-)

PA/fa.	Engineering Subjects in General
	Aeronautical Engineering. See: PA/cb.
PA/fb.	Chemical Engineering
PA/fc.	Civil Engineering
PA/fd.	Electrical Engineering. Electronics
PA/fe.	Industrial Engineering
PA/ff.	Mechanical Engineering. Mechanics. Graphics
	Mineral Engineering. See: PA/co
PA/fg.	Refrigeration Engineering
PA/fh.	Sanitary Engineering
PA/fi.-fz.	Other Engineering Subjects

Variable g: FICTION, DRAMA, POETRY SUBJECTS (PA/g-)

PA/ga.	Fiction, Drama, Poetry Subjects in General
PA/gb.	Adventure. Western. Action.
PA/gc.	Crime. Detective. Mystery.
PA/gd.	Courtship. Love. Romances
PA/ge.	Family Life. Character Studies. Other Inter-personal and Intra-personal Conflicts. (Situation Comedies; Psychological Stories, etc.)
	Literature as a Subject. See: PA/ja.-PA/jy.
PA/gf.	Nature. Animals.
PA/gg.-gz.	Other Subjects of Imaginative Literature

Variable h: FINE ARTS AND APPLIED ARTS SUBJECTS (PA/h-)

PA/ha.	Fine Arts and Applied Arts in General
PA/hb.	Architecture. Building Trades. Housing and Housing News.
PA/hc.	Art. Art Appreciation, Criticism, History, News; Reviews of Exhibitions; Arts and Crafts.
PA/hd.	Dramatic Arts; Reviews of Plays, Movies, etc. Theater News
PA/he.	Music. Music Appreciation, Criticism, History, News.
PA/hf.	Painting. Illustration.
PA/hg.	Printing.
PA/hh.	Sculpture
PA/hi.-hz.	Other Fine Arts and Applied Arts Subjects

PROGRAM FACET (P)

Aspect A - SUBJECTS OF INSTRUCTION, ENTERTAINMENT, INFORMATION (PA/) Continued

Variable i: HOME ECONOMICS; WOMENS' INTEREST SUBJECTS (PA/i-)

PA/ia.	Home Economics or Womens' Interests in General
PA/ib.	Beauty Care
PA/ic.	Child Development. Child Training. Childrens' Activities
PA/id.	Clothing and Textiles. Fashions. Fashion News
PA/ie.	Family Relations
PA/if.	Foods and Nutrition. Cooking. Recipes
PA/ig.	Home Decoration
PA/ih.	Home Management
PA/ii.	Social Activities. Society News
PA/ij.-iz.	Other Home Economics or Womens' Interest Subjects

Variable j: LANGUAGE AND LITERATURE SUBJECTS (PA/j-)

PA/ja.	Language or Literature in General
PA/jb.	Grammar. Philology
PA/jc.	Journalism.
PA/jd.	Literary Criticism. Reviews of Literature.
PA/je.	English Language and Literature
PA/jf.	Foreign Languages and Literatures (General)
PA/jg.	French Language and Literature
PA/jh.	German Language and Literature
PA/ji.	Greek Language and Literature
PA/jj.	Italian Language and Literature
PA/jk.	Latin Language and Literature
PA/jm.	Russian Language and Literature
PA/jn.	Spanish Language and Literature
	Subjects of Literature. See: PA/ga.-PA/gy.
PA/jo.	Comparative Literature
PA/jp.-jz.	Other Language and Literature Subjects

PROGRAM FACET (P)

Aspect A - SUBJECTS OF EDUCATION, ENTERTAINMENT, INFORMATION (PA/) Continued

Variable k: MEDICAL AND HEALTH SUBJECTS (PA/k-)

PA/ka.	Medical or Health Subjects in General
PA/kb.	Anatomy
PA/kc.	Dentistry
PA/kd.	Hospitals
PA/ke.	Medical Technology
PA/kf.	Medicine
PA/kg.	Nurses and Nursing
PA/kh.	Occupation Therapy
PA/ki.	Optometry
PA/kj.	Osteopathy
PA/kk.	Patients
PA/km.	Pharmacy
	Physical Education. See: PA/hh.
PA/kn.	Physical Therapy
PA/ko.	Physicians
PA/kp.	Physiology
PA/kq.	Psychiatry
PA/kr.	Public Health
PA/ks.	Veterinary Medicine
PA/kt.-kz.	Other Medical or Health Subjects

Variable m: MILITARY SUBJECTS (PA/m-)

PA/ma.	Military Subjects in General
PA/mb.	Air Force Education and Training - Officers
PA/mc.	Air Force Education and Training - Enlisted Personnel
PA/md.	Air Force News
PA/me.	Army Education and Training - Officers
PA/mf.	Army Education and Training - Enlisted Personnel
PA/mg.	Army News
PA/mh.	Marines Education and Training - Officers
PA/mi.	Marines Education and Training - Enlisted Personnel
PA/mj.	Marines News
PA/mk.	Navy Education and Training - Officers
PA/mm.	Navy Education and Training - Enlisted Personnel
PA/mn.	Navy News
PA/mo.	Logistics
PA/mp.	Tactics
PA/mq.	Weapons and Equipment
PA/mr.-mz.	Other Military Subjects

PROGRAM FACET (P)

Aspect A - SUBJECTS OF EDUCATION, ENTERTAINMENT, INFORMATION (PA/) Continued

Variable n: RELIGIOUS SUBJECTS (PA/n-)

PA/na.	Religion in General
PA/nb.	Bible. Koran. Sacred Books
PA/nc.	Church. Synagogue. Temple
PA/nd.	Comparative Religion.
PA/ne.	Religious Education and Training
PA/nf.	Sunday School
PA/ng.	Theology.
PA/nh.	Mythology
PA/ni.-nz.	Other Religious Subjects

Variable o: SCIENCE SUBJECTS (PA/o-)

PA/oa.	Science in General
PA/ob.	Aeronautics
PA/oc.	Astronautics
PA/od.	Astronomy
PA/oe.	Bacteriology
PA/of.	Biology
PA/og.	Botany
PA/oh.	Chemistry
PA/oi.	Crystallography
PA/oj.	Ethnology
PA/ok.	Geology. Earth Sciences
PA/om.	Mathematics. Statistics. Arithmetic
PA/on.	Meteorology. Weather
PA/oo.	Mineralogy. Mineral Engineering. Mining. Metallurgy
PA/op.	Natural History
PA/oq.	Paleontology
PA/or.	Petrology
PA/os.	Physics
PA/ot.	Zoology
PA/ou.-oz.	Other Science Subjects

PROGRAM FACET (P)

Aspect A - SUBJECTS OF EDUCATION, ENTERTAINMENT, INFORMATION (PA/) Continued

Variable p: SOCIAL SCIENCE SUBJECTS (PA/p-)

PA/pa.	Social Science in General
PA/pb.	American Civilization and Culture
PA/pc.	Anthropology
PA/pd.	Archaeology
PA/pe.	Biography
	Business and Commerce. See: PA/da.-PA/dy.
PA/pf.	Economics
	Economics, Agricultural. See: PA/ab.
PA/pg.	Geography. Travel. Exploration
PA/ph.	History. Current Events. News (General)
	Industrial Relations. See: PA/dg.
PA/pi.	International Relations. United Nations
PA/pj.	Law
PA/pk.	Library Science
PA/pm.	Philosophy
PA/pn.	Political Science. Government. Politics. Civics
PA/po.	Psychology
PA/pp.	Public Administration
PA/pq.	Social Work and Administration
PA/pr.	Sociology
PA/ps.-pz.	Other Social Science Subjects

Variables q.-z. OTHER SUBJECTS (PA/q- PA/z-)
To be subdivided as needed

Aspect B - KIND OF PROGRAM (PB/)

Variable a: INFORMATION OR INSTRUCTION (PB/a-)

PB/aa.	Informational and Instructional Program in General
PB/ab.	Education. Learning. (Includes school classes, TV or radio classes for home audiences, laboratory periods, lectures, sermons, recitations, use of reading machines, etc.)
PB/ac.	Training (In construction, assembly, repair, performance, or skill: How-to-do-it)
PB/ad.	Advice. Opinion. (Includes editorials, public speeches, etiquette-, lovelorn-, and other columnists, etc.)
PB/ae.	Discussion and Discussion method. Conference.
PB/af.	Interview. Conversation
PB/ag. -	News; Newsreel; News-in-depth (Includes news about weather, markets, etc., as well as current events.
PB/ah.	Documentary
PB/ai	Travelogue
PB/aj	Exhibition (Art, Museum, etc.)
PB/ak	Advertisement. Commercials. Propaganda program. Public Relations Program
PK/am	Reading for Information or Instruction
PB/an.-az.	Other informational or instructional programs.

PROGRAM FACET (P)

Aspect B - KIND OF PROGRAM (PB/) Continued

Variable b: DRAMATIC ENTERTAINMENT (PB/b-)

PB/ba.	Dramatic Presentation or Program, General.
PB/bb.	Dramatic Monologue
PB/bc.	Reading of Plays, Novels, etc. (Silent reading, or oral)
PB/bd.	One-act-plays. Blackouts. Skits
PB/be.	Short (1/2-3/4 hour) Play
PB/bf.	Short (1/2-3/4 hour) Dramatic Series or Serial
PB/bg.	Long (3/4 hour +) Play
PB/bh.	Long (3/4 hour +) Dramatic Series or Serial
PB/bi.	Musical Play; Musical Comedy; Operetta; Opera
PB/bj.	Puppet Show. Marionettes. Ventriloquist
PB/bk.	Cartoon Series; Comic Strip or Book; "Short-Subject" Cartoon Movies, etc.; Feature-Length Cartoon Movies; Animated Films.
PB/bl.-bz.	Other types of dramatic programs or performances.

Variable c: MUSIC. DANCE. (PB/c-)

PB/ca.	Ballet Performance
PB/cb.	Choir or Chorus Concert
PB/cc.	Dance Program
PB/cd.	Instrumental Recital
	Musical Comedy. See: PB/bh.
	Opera. Operetta. See: PB/bh.
PB/ce.	Popular Music Program
PB/cf.	Symphony Orchestra Concert
PB/cg.	Variety Program. Vaudeville
PB/ch.	Vocal Recital
PB/ci.-cr.	Other types of music or dance programs.

Variable d: CONTESTS. GAMES. (PB/d-)

PB/da.	Non-athletic contests or games
PB/db.	Card Games. Bridge
PB/dc.	Puzzles
PB/dd.	Athletic Contests and Activities
PB/de.	Acrobatics. Trapeze. Circus
PB/df.	Basketball
PB/dg.	Baseball
PB/dh.	Bowling
PB/di.	Boxing
PB/dj.	Football
PB/dk.	Golf
PB/dm.	Hockey
PB/dn.	Horse Racing
PB/do.	Skating
PB/dp.	Skiing
PB/dq.	Tennis
PB/dr.	Wrestling
PB/ds.-dz.	Other contest or games programs.

PROGRAM FACET (P)

Aspect B - KIND OF PROGRAM (PB/) Continued

Variables e - z: OTHER KINDS OF PROGRAMS (PB/e- PB/z-)

To be subdivided as needed

Aspect C - SPONSOR OF PROGRAM (PC/)

Variable a: ACADEMIC OR EDUCATIONAL ORGANIZATION (PC/a-)

PC/aa.	School system, Primary and/or Secondary
PC/ab.	College or University
PC/ac.	Adult Education Organization
PC/ad.	Educational Association, or Society
PC/ae.-az.	Other Academic or Educational Organizations

Variable b: COMMERCIAL OR INDUSTRIAL ORGANIZATION (PC/b-)

PC/ba.	Manufacturing or Producing (Includes Agricultural)
PC/bb.	Distributing
PC/bc.	Consumer Service
PC/bd.	Union Organization
PC/be.-bz.	Other Commercial or Industrial Organizations

Variable c: CULTURAL ORGANIZATION (PC/c-)

PC/ca.	Art
PC/cb.	Library
PC/cc.	Museum
PC/cd.	Music
PC/ce.	Theater
PC/cf.-cz.	Other Cultural Organizations

Variable d: FINANCIAL ORGANIZATION (PC/d-)

PC/da.	Bank
PC/db.	Broker
PC/dc.-dz.	Other Financial Organizations

Variable e: GOVERNMENTAL ORGANIZATION (Except Educational or Military) (PC/e-)

PC/ea.-ez.	To be subdivided as necessary

Variable f: INDIVIDUAL, OR GROUP OF INDIVIDUALS (PC/f-)

PC/fa.-fz	To be subdivided as necessary

PROGRAM FACET (P)

Aspect C - SPONSOR OF PROGRAM (PC/) Continued

Variable g: MILITARY ORGANIZATION (PC/g-)

PC/ga.	Air Force
PC/gb.	Army
PC/gc.	Marines
PC/gd.	Navy
PC/ge.-gz.	Other Military Organizations

Variable h: POLITICAL ORGANIZATION (PC/h-)

PC/ha.	Democratic
PC/hb.	Republican
PC/hc.-hz.	Other Political Organizations

Variable i: PROFESSIONAL ORGANIZATION (PC/i-)

PC/ia.	Legal Organization
PC/ib.	Medical or Health Organization
PC/ic.	Religious Organization
PC/id.	Scientific Organization
PC/ie.-iz.	Other Professional Organizations (cf. PC/ad., above)

Variable j: PUBLIC SERVICE ORGANIZATION (PC/j-)

PC/ja.-jz.	To be subdivided as needed

Variable k: PUBLISHING ORGANIZATION (PC/k-)

PC/ka.	Book Publisher (Commercial)
PC/kb.	University Press
PC/kc.	Magazine Publisher
PC/kd.	Newspaper Publisher
PC/ke.-kz.	Other Publishing Organizations

Variable m: TECHNICAL ORGANIZATION (PC/m-)

PC/ma.	Trade School
PC/mb.-mz.	Other Technical Organizations

Variables n.-z. OTHER SPONSORS OF PROGRAMS (PC/n- PC/z-)

PC/na.-nz.	To be subdivided as needed

PROGRAM FACET (P)

Aspect D - CHARACTERISTICS OF PRESENTATION (PD/)

Variable a: EFFECT OF NON-CONTENT FACTORS (PD/a)

PD/aa.	Effect of Personality of Communicator
PD/ab.	Effect of Color versus Black and White
PD/ac.	Effect of Order and Time
PD/ad.	Effect of Pictures versus Words
PD/ae.	Effect of Repetition
PD/af.	Effect of Size and Shape
PD/ag.-az.	Other Effects

Variable b: OBSERVATIONAL CHARACTERISTICS (PD/b-)

PD/ba.	Angle of hearing or viewing
PD/bb.	Distance of hearing or viewing
PD/bc.	Height of hearing or viewing
PD/bd.	Illumination of hearing or viewing
PD/be.	Size of image viewed
PD/bf.	Volume of sound
PD/bg.-bz.	Other observational characteristics

Variables c - z: OTHER CHARACTERISTICS OF PRESENTATION (PD/ca.-PD/zz.)

To be subdivided as needed

Aspects E - Z - OTHER PROGRAM CHARACTERISTICS (PE/ - PZ/)

To be subdivided as needed

RESEARCH

FACET

RESEARCH FACET (R)

Contents:

Aspect A - TYPE OF STUDY (RA/) . . . . p. R 2

Variable a: Study based on personal opinion and description (RA/aa. -RR/az.)
b: Study based on historical analysis (RA/ba. -RA/bz.)
c: Study based on patterned inquiry (RA/ca. -RA/cz.)

Aspect B - TESTING DEVICES (RB/) . . . . p. R 3

Variable a: Tests (RB/aa. -RB/az.)
b-z: Other (RB/ba. -RB/zz.)

Aspects C through Z: OTHER ASPECTS (RC/- RZ/). . . . . p. R 3

RESEARCH FACET (R)

Aspect A - TYPE OF STUDY (RA/)

Variable a: STUDY BASED ON PERSONAL OPINION AND DESCRIPTION (RA/a-)

RA/aa.	Definitions of values and assumptions
RA/ab.	Lay opinion, speculation, or description (With no reference to the nature or extent of observation; or to the evidence on which judgments are based.)
RA/ac.	Expert opinion, or description (Based on formal training, wide observation, or long experience, or all of these; but with no reference to the nature or extent of supporting observation or evidence.)
RA/ad.-az.	Other

Variable b: STUDY BASED ON HISTORICAL ANALYSIS (RA/b-)

RA/ba.	Descriptive or narrative account (of persons, institutions, or ideas.)
RA/bb.	Organized, evaluated analysis of trends or sequences (In relation to institutions, persons, ideas, or other phenomena; to identify trends or dynamic factors; the genetic method)
RA/bc.-bz.	Other

Variable c: STUDY BASED ON PATTERNED INQUIRY (RA/c-)

RA/ca.	The Survey. (Analysis and evaluation of current data to find the extent to which certain categories actually describe an institution, a population, or numbers of instances: polls, market researches, panel study, content analysis.)
RA/cb.	The Experiment. (Systematic control and variation of specified variables; refined measurement, analysis and evaluation of data in order to discern relationships among variables.)
RA/cc.	The Causal-Comparative and Correlation Methods (Comparison of circumstances connected with variables not controlled, or analysis of relationship of selected variables to each other.)
RA/cd.	Case Studies. (Collection, intensive analysis and evaluation of data on individual persons, institutions, communities, or events; comparison of selected data derived from a number of more or less comparable individual case studies, providing a basis for generalizations.)
RA/ce-cz.	Other

Variables d-z: OTHER TYPES OF STUDY (RA/d- RA/z-)
To be subdivided as needed

RESEARCH FACET (R)

Aspect B - TESTING DEVICES (RB/)

Variable a: TESTS (RB/a)

RB/aa.	Attitude Scales and Tests
RB/ab.	Completion Tests
RB/ac.	Elimination Tests
RB/ad.	Essay Tests
RB/ae.	Frustration Tolerance Tests
RB/af.	Interest Blanks and Tests
RB/ag.	Interview (Ratings)
RB/ah.	Motor Skill Tests
RB/ai.	Multiple Choice Tests
RB/aj.	Open-ended Questionnaires
RB/ak.	Opinion Questionnaires
RB/al.	Oral Performance Tests
RB/am.	Personality Tests
RB/an.	Projective Tests
RB/ao.	Psychological tests
RB/ap.	Ratings of Group Behavior
RB/aq.	Recognition Tests
RB/ar.	Situational Tests
RB/as.	True-false Tests
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To be subdivided as needed

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Achievement, Acquisition of understanding AC/fa-fz
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Acquisition of skills, Achievement in AC/ea-ez
Acquisition of understanding, Achievement in AC/fa-fz
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Therapy, Physical PA/kn
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Widowed, The, as audience AA/go
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Womens' interest subjects PA/ia-iz
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Writing (Composition) as an academic subject PA/cf
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X - Y - Z

Xerographic copy of textual material MF/ci
Yellow race as audience AA/cb
Zoology PA/ot

SIMPLIFIED
EXPLORATORY
CLASSIFICATION SCHEDULE
FOR
RESEARCH
IN
EDUCATIONAL MEDIA

AUDIENCE FACET

Aspect A - DEMOGRAPHIC

Columns 1 and 2 : AGE AND SEX CHARACTERISTICS

Spaces	0	0.	Infants (General)	(AA/aa)
	0	1.	Children (General)	(AA/ab)
	0	2.	Adolescents (General)	(AA/ac)
	0	3.	Young Adults (General)	(AA/ad)
	0	4.	Mature Adults (General)	(AA/ae)
	0	5.	The Aged (General)	(AA/af)
	0	6.	Males (General)	(AA/ba)
	0	7.	Females (General)	(AA/bb)
	0	8.	Both Males and Females (General)	(AA/bc)
	0	9.	Infants - Males	(AA/aa;ba)
	1	0.	Infants - Females	(AA/aa;bb)
	1	1.	Infants - Both Males and Females	(AA/aa;bc)
	1	2.	Children - Males	(AA/ab;ba)
	1	3.	Children - Females	(AA/ab;bb)
	1	4.	Children - Both Males and Females	(AA/ab;bc)
	1	5.	Adolescents - Males	(AA/ac;ba)
	1	6.	Adolescents - Females	(AA/ac;bb)
	1	7.	Adolescents - Both Males and Females	(AA/ac;bc)
	1	8.	Young Adults - Males	(AA/ad;ba)
	1	9.	Young Adults - Females	(AA/ad;bb)
	2	0.	Young Adults - Both Males and Females	(AA/ad;bc)
	2	1.	Mature Adults - Males	(AA/ae;ba)
	2	2.	Mature Adults - Females	(AA/ae;bb)
	2	3.	Mature Adults - Both Males and Females	(AA/ae;bc)
	2	4.	The Aged - Males	(AA/af;ba)
	2	5.	The Aged - Females	(AA/af;bb)
	2	6.	The Aged - Both Males and Females	(AA/af;bc)

2 and 7 through 9 and 9. Other age and sex variables
(AA/ag (-az) ; bd (-bz)

Aspect A - DEMOGRAPHIC Continued

Columns 3 and 4 : ETHNIC AND RELIGIOUS CHARACTERISTICS

Spaces	0	0.	White Race (General)	(AA/ca)
	0	1.	Yellow Race (General)	(AA/cb)
	0	2.	Red Race (General)	(AA/cc)
	0	3.	Brown Race (General)	(AA/cd)
	0	4.	Black Race (General)	(AA/ce)
	0	5.	Christian (General)	(AA/da)
	0	6.	Jewish (General)	(AA/db)
	0	7.	Islamic (General)	(AA/dc)
	0	8.	White Race - Christian	(AA/ca;da)
	0	9.	White Race - Jewish	(AA/ca;db)
	1	0.	White Race - Islamic	(AA/ca;dc)
	1	1.	White Race - Other Religions	(AA/ca;dd-dz)
	1	2.	Yellow Race - Christian	(AA/cb;da)
	1	3.	Yellow Race - Jewish	(AA/cb;db)
	1	4.	Yellow Race - Islamic	(AA/cb;dc)
	1	5.	Yellow Race - Other Religions	(AA/cb;dd-dz)
	1	6.	Red Race - Christian	(AA/cc;da)
	1	7.	Red Race - Jewish	(AA/cc;db)
	1	8.	Red Race - Islamic	(AA/cc;dc)
	1	9.	Red Race - Other Religions	(AA/cc;dd-dz)
	2	0.	Brown Race - Christian	(AA/cd;da)
	2	1.	Brown Race - Jewish	(AA/cd;db)
	2	2.	Brown Race - Islamic	(AA/cd;dc)
	2	3.	Brown Race - Other Religions	(AA/cd;dd-dz)
	2	4.	Black Race - Christian	(AA/ce;da)
	2	5.	Black Race - Jewish	(AA/ce;db)
	2	6.	Black Race - Islamic	(AA/ce;dc)
	2	7.	Black Race - Other Religions	(AA/ce;dd-dz)

2 and 8 through 9 and 9. Other ethnic and religious variables (AA/cf (-cz) ; dd (-dz)

Aspect A - DEMOGRAPHIC Continued

Columns 5 and 6 : EDUCATIONAL CHARACTERISTICS

Spaces	**0**	**0.**	**Pre-school**	**(AA/ha)**
	0	**1.**	**Kindergarten**	**(AA/hb)**
	0	**2.**	**Elementary School**	**(AA/hc)**
	0	**3.**	**Junior High School**	**(AA/hd)**
	0	**4.**	**High School**	**(AA/he)**
	0	**5.**	**Junior College**	**(AA/hf)**
	0	**6.**	**Undergraduate College, Four-year**	**(AA/hg)**
	0	**7.**	**Fifth-year Bachelors Programs**	**(AA/hh)**
	0	**8.**	**Masters Programs**	**(AA/hi)**
	0	**9.**	**Doctoral Programs**	**(AA/hj)**
	1	**0.**	**Post-doctoral Programs**	**(AA/hk)**
	1	**1.**	**Armed Services Programs**	**(AA/hl)**
	1	**2.**	**Vocational School Programs**	**(AA/hm)**
	1	**3.**	**Professional School Programs**	**(AA/hn)**
	1	**4.**	**Religious School Programs**	**(AA/ho)**
	1	**5.**	**Teachers College Programs**	**(AA/hp)**
	1	**6.**	**Adult Education Programs**	**(AA/hq)**
	1	**7.**	**General Public as Audience**	**(AA/hr)**
	1	**8.**	**Teachers as Audience**	**(AA/hs)**

1 and 9 through 4 and 9. Other educational variables
(AA/ht - hz)

5 and 0 through 9 and 9. OTHER DEMOGRAPHIC CHARACTERISTICS
(AA/ia - zz)

Aspect B - ENVIRONMENTAL

Column 7 : AUDIENCE-SIZE CHARACTERISTICS

Space	**0.**	**Less than 10 people**	**(AB/aa)**
	1.	**10 - 30 people**	**(AB/ab)**
	2.	**30 - 50 people**	**(AB/ac)**
	3.	**50 - 100 people**	**(AB/ad)**
	4.	**100 - 500 people**	**(AB/ae)**
	5.	**500 - 1,000 people**	**(AB/af)**
	6.	**1,000 - 10,000 people**	**(AB/ag)**
	7.	**10,000 - 100,000 people**	**(AB/ah)**
	8.	**100,000 - 1,000,000 people**	**(AB/ai)**
	9.	**More than 1,000,000 people**	**(AB/aj)**

AUDIENCE FACET

Aspect B - ENVIRONMENT Continued

Column 8 : GEOGRAPHICAL ENVIRONMENT CHARACTERISTICS

Space	0.	Local U.S. (city or town)	(AB/ba)
	1.	State U.S.	(AB/bb)
	2.	Regional U.S.	(AB/bc)
	3.	National U.S.	(AB/bd)
	4.	Foreign Country (ies)	(AB/be)
	5.	International	(AB/bf)
	6 through 9.	Other geographical environment characteristics (AB/bg-bz)	

Column 9 : INSTRUCTIONAL ENVIRONMENT CHARACTERISTICS

Space	0.	Home as educational locale	(AB/ca)
	1.	Classroom as educational locale	(AB/cb)
	2.	Lecture Hall or Auditorium as educational locale	(AB/cc)
	3.	Monitor Room as educational locale	(AB/cd)
	4.	Television or Radio Studio as educational locale	(AB/ce)
	5.	Laboratory as educational locale	(AB/cf)
	6.	Outdoor Assembly as educational locale	(AB/cg)
	7.	Visit, Educational, as educational locale	(AB/ch)
	8.	Nature Hike as educational locale	(AB/ci)
	9.	Other instructional environments	(AB/cj-cs)

Aspect C - PSYCHOLOGICAL

Column 10 : INTELLIGENCE

Space	0.	General aspects of intelligence	(AC/aa)
	1.	Low intelligence	(AC/ab)
	2.	Average intelligence	(AC/ac)
	3.	High intelligence	(AC/ad)
	4.-9.	Other intelligence variables	(AC/ae through az)

Column 11 : OTHER PRECONDITIONS TO LEARNING

Space	0.	Attention	(AC/ba)
	1.	Motivation	(AC/bb)
	2.	Attitude toward learning environment	(AC/bc)
	3.	Attitude toward educational medium	(AC/bd)
	4.	Attitude toward teacher or communicator	(AC/be)
	5.	Preformed Opinions and Prejudices	(AC/bf)
	6.-9.	Other preconditions to learning	(AC/bg-through bz)

AUDIENCE FACET

Aspect C - PSYCHOLOGICAL Continued

Column 12 : LEARNING ACTIVITIES

Space	0.	Analysing	(AC/cb)
	1.	Creating	(AC/cd)
	2.	Discussing	(AC/ce)
	3.	Listening	(AC/cf)
	4.	Memorizing	(AC/ch)
	5.	Reading	(AC/ck)
	6.	Reciting	(AC/cl)
	7.	Spelling	(AC/cm)
	8.	Synthesizing	(AC/co)
	9.	Other learning activities	(AC/cr - cz)

Column 13 : GENERAL RESPONSES TO LEARNING SITUATION

Space	0.	Effect on consumers' behavior	(AC/ha)
	1.	Effect on students' behavior	(AC/hb)
	2.	Effect on teachers' behavior	(AC/hc)
	3.	Effect on administrators' behavior	(AC/hd)
	4.	Effect on sponsors' behavior	(AC/he)
	5.-9.	Effects on other groups	(AC/hf-hz)

Columns 14 and 15 : ACHIEVEMENT

Achievement in Acquisition of Facts

Spaces	0	0.	Immediate recall (General)	(AC/da)
	0	1.	Immediate recall, Unassisted	(AC/db)
	0	2.	Immediate recall, Aided	(AC/dc)
	0	3.	Immediate recognition (General)	(AC/dd)
	0	4.	Immediate recognition, Visual	(AC/de)
	0	5.	Immediate recognition, Auditory	(AC/df)
	0	6.	Delayed recall (General)	(AC/dg)
	0	7.	Delayed recall, Unassisted	(AC/dh)
	0	8.	Delayed recall, Aided	(AC/di)
	0	9.	Delayed recognition (General)	(AC/dj)
	1	0.	Delayed recognition, Visual	(AC/dk)
	1	1.	Delayed recognition, Auditory	(Ad/dl)
	1	2.	Other	(AC/dm - dz)

AUDIENCE FACET

Aspect C - PSYCHOLOGICAL Continued

Columns 14 and 15 ACHIEVEMENT Continued

Achievement in Acquisition of Skills

Spaces			
1	3.	Motor skills (General)	(AC/ea)
1	4.	Motor skills in adjusting apparatus	(AC/eb)
1	5.	Motor skills in assembling apparatus	(AC/ec)
1	6.	Motor skills in constructing apparatus	(AC/ed)
1	7.	Motor skills in manipulating apparatus	(AC/ee)
1	8.	Perceptual motor skills (General)	(AC/ef)
1	9.	Perceptual motor skills in adjusting	(AC/eg)
2	0.	Perceptual motor skills in assembling	(AC/eh)
2	1.	Perceptual motor skills in constructing	(AC/ei)
2	2.	Perceptual motor skills in interpreting	(AC/ej)
2	3.	Perceptual motor skills in manipulating or performing	(AC/ek)
2	4.	Other	(AC/el - ez)

Achievement in Acquisition of Understanding

2	5.	General aspects of understanding	(AC/fa)
2	6.	Analysis of information	(AC/fb)
2	7.	Synthesis of information	(AC/fc)
2	8.	Other	(AC/fd - fz)

Achievement in Changing Attitudes and Opinions

2	9.	Attitudes and opinions about self	(AC/ga)
3	0.	Attitudes and opinions about economic conditions	(AC/gb)
3	1.	Attitudes and opinions about social conditions	(AC/gc)

3 and 2 through 4 and 9 OTHER PSYCHOLOGICAL CHARACTERISTICS (AC/ia - zz)

5 and 0 through 9 and 9 OTHER AUDIENCE VARIABLES (AD/aa - AZ/zz)

MEDIA FACET

Aspect A - TELEVISION

Column 16. CIRCUIT, FREQUENCY, AND STATION CHARACTERISTICS

Space	0.	Closed Circuit	(MA/aa)
	1.	Open Circuit (General)	(MA/ab)
	2.	V.H.F. (General)	(MA/ba)
	3.	U.H.F. (General)	(MA/bb)
	4.	Open Circuit - V.H.F. - Individual Station	(MA/ab;ba;ca)
	5.	Open Circuit - V.H.F. - Network	(MA/ab;ba;cb)
	6.	Open Circuit - U.H.F. - Individual Station	(MA/ab;bb;ca)
	7.	Open Circuit - U.H.F. - Network	(MA/ab;bb;cb)
	8.-9.	Other	(MA/ac-az;bc-bz;cc-cz)

Columns 17 and 18. AUDIO, CHROMATIC, AND PERFORMANCE CHARACTERISTICS

Spaces	0	0.	Monaural (General)	(MA/da)
	0	1.	Binaural (General)	(MA/db)
	0	2.	Stereophonic (General)	(MA/dc)
	0	3.	Black and White (General)	(MA/ea)
	0	4.	Color (General)	(MA/eb)
	0	5.	Live Performance (General)	(MA/ha)
	0	6.	Kinescope Recording (General)	(MA/hb)
	0	7.	Videotape Recording (General)	(MA/hc)
	0	8.	Monaural - Black and White	(MA/da;ea)
	0	9.	Monaural - Color	(MA/da;eb)
	1	0.	Monaural - Live Performance	(MA/da;ha)
	1	1.	Monaural - Kinescope Recording	(MA/da;hb)
	1	2.	Monaural - Videotape Recording	(MA/da;hc)
	1	3.	Monaural - Black and White - Live Performance	(MA/da;ea;ha)
	1	4.	Monaural - Black and White - Kinescope Recording	(MA/da;ea;hb)
	1	5.	Monaural - Black and White - Videotape Recording	(MA/da;ea;hc)
	1	6.	Monaural - Color - Live Performance	(MA/da;eb;ha)
	1	7.	Monaural - Color - Videotape Recording	(MA/da;eb;hc)
	1	8.	Binaural - Black and White	(MA/db;ea)
	1	9.	Binaural - Color	(MA/db;eb)
	2	0.	Binaural - Live Performance	(MA/db;ha)
	2	1.	Binaural - Kinescope Recording	(MA/db;hb)
	2	2.	Binaural - Videotape Recording	(MA/db;hc)
	2	3.	Binaural - Black and White - Live Performance	(MA/db;ea;ha)
	2	4.	Binaural - Black and White - Kinescope Recording	(MA/db;ea;hb)
	2	5.	Binaural - Black and White - Videotape Recording	(MA/db;ea;hc)
	2	6.	Binaural - Color - Live Performance	(MA/db;eb;ha)
	2	7.	Binaural - Color - Videotape Recording	(MA/db;eb/hc)
	2	8.	Stereophonic - Black and White	(MA/dc;ea)
	2	9.	Stereophonic - Color	(MA/dc;eb)
	3	0.	Stereophonic - Live Performance	(MA/dc;ha)
	3	1.	Stereophonic - Kinescope Recording	(MA/dc;hb)
	3	2.	Stereophonic - Videotape Recording	(MA/dc;hc)
	3	3.	Stereophonic-Black and White-Live Performance	(MA/dc;ea;ha)
	3	4.	Stereophonic-Black and White-Kinescope Recording	(MA/dc;ea;hb)

Aspect A - TELEVISION Continued

Columns 17 and 18.		AUDIO, CHROMATIC, AND PERFORMANCE CHARACTERISTICS Continued	
Spaces 3	5.	Stereophonic-Black and White-Videotape Recording	(MA/dc;ea;hc)
3	6.	Stereophonic-Color-Live Performance	(MA/dc;eb;ha)
3	7.	Stereophonic-Color-Videotape Recording	(MA/dc;eb;hc)
3	8.	Black and White-Live Performance	(MA/ea;ha)
3	9.	Black and White-Kinescope Recording	(MA/ea;hb)
4	0.	Black and White-Videotape Recording	(MA/ea;hc)
4	1.	Color-Live Performance	(MA/eb;ha)
4	2.	Color-Videotape Recording	(MA/eb;hc)
4 and	3.	through 9 and 9. OTHER AUDIO, CHROMATIC, OR PERFORMANCE CHARACTERISTICS	
Column 19.		INSTRUMENT CHARACTERISTICS	
Space	0.	Cameras	(MA/ga)
	1.	Receivers	(MA/gb)
	2.	Microphones	(MA/gc)
	3.	Auxiliary Apparatus	(MA/gd)
	4.-9.	Other Instrument Characteristics	(MA/ge-gz)

Aspect B - MOTION PICTURES

Column 20.		AUDIO AND CHROMATIC CHARACTERISTICS	
Space	0.	Silent - Black and White	(MB/aa;ba)
	1.	Silent - Color	(MB/aa;bb)
	2.	Audio characteristics in general	(MB/ab)
	3.	Monaural - Black and White	(MB/ac;ba)
	4.	Monaural - Color	(MB/ac;bb)
	5.	Stereophonic - Black and White	(MB/ae;ba)
	6.	Stereophonic - Color	(MB/ae;bb)
	7.-9.	Other	(MB/af-az;bc-bz)
Column 21.		FILM SIZE AND VISUAL DIMENSION CHARACTERISTICS	
Space	0.	8 mm. - Two dimensional	(MB/ca;db)
	1.	8 mm. - Three dimensional	(MB/ca;dc)
	2.	16 mm. - Two dimensional	(MB/cb;db)
	3.	16 mm. - Three dimensional	(MB/cb;dc)
	4.	35 mm. - Two dimensional	(MB/cc;db)
	5.	35 mm. - Three dimensional	(MB/cc;dc)
	6.	70 mm. - Two dimensional	(MB/cd;db)
	7.	70 mm. - Three dimensional	(MB/cd;dc)
	8.-9.	Other	(MB/ce-cz;dd-dz)

MEDIA FACET

Aspect B - MOTION PICTURES Continued

Column 22.		INSTRUMENT CHARACTERISTICS	
Space	0.	Cameras	(MB/ga)
	1.	Projectors	(MB/gb)
	2.	Screens	(MB/gc)
	3.	Sound Apparatus	(MB/gd)
	4.	Auxiliary Apparatus	(MB/ge)
	5.-9.	Other Instrument Characteristics	(MB/gf-gz)

Aspect C - RADIO

Column 23.		MODULATION AND STATION CHARACTERISTICS	
Space	0.	AM (Amplitude Modulation) - Individual station	(MC/aa;ba)
	1.	AM (Amplitude Modulation) - Network	(MC/aa;bb)
	2.	FM (Frequency Modulation) - Individual station	(MC/ab;ba)
	3.	FM (Frequency Modulation) - Network	(MC/ab;bb)
	4.-9.	Other	(MC/ac-dz;bc-bz)
Column 24.		AUDIO CHARACTERISTICS	
Space	0.	Audio elements in general	(MC/ca)
	1.	Monaural	(MC/cb)
	2.	Binaural	(MC/cc)
	3.	Stereophonic	(MC/cd)
	4.	Other	(MC/ce-cz)
Column 25.		INSTRUMENT CHARACTERISTICS	
Space	0.	Microphones	(MC/da)
	1.	Transmitters	(MC/db)
	2.	Receivers	(MC/dc)
	3.	Speakers (Sound apparatus)	(MC/dd)
	4.	Auxiliary Apparatus	(MC/de)
	5.-9.	Other	(MC/df-dz)

Aspect D - SOUND RECORDINGS

Column 26.		FORMAT AND SPEED CHARACTERISTICS	
Space	0.	Disc Recording - 8 rpm.	(MD/ab;ba)
	1.	Disc Recording - 16 rpm.	(MD/ab;bb)
	2.	Disc Recording - 33 1/3 rpm.	(MD/ab;bc)
	3.	Disc Recording - 45 rpm.	(MD/ab;bd)
	4.	Disc Recording - 78 rpm.	(MD/ab;be)
	5.	Tape Recording - 1 7/8 ips.	(MD/af;bf)
	6.	Tape Recording - 3 3/4 ips.	(MD/af;bg)
	7.	Tape Recording - 7 1/2 ips.	(MD/af;bh)
	8.-9.	Other	(MD/ag-az;bi-bz)

Aspect D - SOUND RECORDINGS Continued

Column 27. AUDIO CHARACTERISTICS

Space	0.	Audio elements in general	(MD/ca)
	1.	Monaural	(MD/cb)
	2.	Binaural	(MD/cc)
	3.	Stereophonic	(MD/cd)
	4.-9.	Other	(MD/ce-cz)

Column 28. INSTRUMENT CHARACTERISTICS

Space	0.	Microphones	(MD/dc)
	1.	Disc Recorders	(MD/dd)
	2.	Tape Recorders	(MD/de)
	3.	Speakers and Speaker Systems	(MD/df)
	4.	Record Players	(MD/dg)
	5.	Auxiliary Apparatus	(MD/dh)
	6.-9.	Other	(MD/di-dz)

Aspect E - PROJECTED MOTIONLESS STILL PICTURES

Column 29. FORMAT AND AUDIO CHARACTERISTICS

Space	0.	Filmstrips with sound accompaniment	(ME/aa;ca)
	1.	Filmstrips without sound accompaniment	(ME/aa;cb)
	2.	Slides with sound accompaniment	(ME/ab;ca)
	3.	Slides without sound accompaniment	(ME/ab;cb)
	4.	Transparencies for Overhead Projector, with sound accompaniment	(ME/ac;ca)
	5.	Transparencies for Overhead Projector, without sound accompaniment	(ME/ac;cb)
	6.	Material for Opaque Projector, with sound accompaniment	(ME/ad;ca)
	7.	Material for Opaque Projector, without sound accompaniment	(ME/ad;cb)
	8.-9.	Other	(ME/ae-az;cc-cz)

Columns 30 and 31. SIZE, CHROMATIC, AND VISUAL DIMENSION CHARACTERISTICS

Spaces	0	0.	8 mm. (General)	(ME/ba)
	0	1.	16 mm. (General)	(ME/bb)
	0	2.	35 mm. (General)	(ME/bc)
	0	3.	2" x 2" (General)	(ME/bd)
	0	4.	3" x 4" (General)	(ME/be)
	0	5.	Black and White (General)	(ME/da)
	0	6.	Color (General)	(ME/db)
	0	7.	Two dimensional (General)	(ME/ea)
	0	8.	Three dimensional (General)	(ME/eb)
	0	9.	8 mm. - Black and White	(ME/ba;da)
	1	0.	8 mm. - Color	(ME/ba;db)
	1	1.	8 mm. - Two dimensional	(ME/ba;ea)
	1	2.	8 mm. - Three dimensional	(ME/ba;eb)

Aspect E - PROJECTED MOTIONLESS STILL PICTURES Continued

Columns 30 and 31. SIZE, CHROMATIC, AND VISUAL DIMENSION CHARACTERISTICS Continued

Spaces 1	3.	8 mm. - Black and White - Two dimensional	(ME/ba;da;ea)
1	4.	8 mm. - Black and White - Three dimensional	(ME/ba;da;eb)
1	5.	8 mm. - Color - Two dimensional	(ME/ba;db;ea)
1	6.	8 mm. - Color - Three dimensional	(ME/ba;db;eb)
1	7.	16 mm. - Black and White	(ME/bb;da)
1	8.	16 mm. - Color	(ME/bb;db)
1	9.	16 mm. - Two dimensional	(ME/bb;ea)
2	0.	16 mm. - Three dimensional	(ME/bb;eb)
2	1.	16 mm. - Black and White - Two dimensional	(ME/bb;da;ea)
2	2.	16 mm. - Black and White - Three dimensional	(ME/bb;da;eb)
2	3.	16 mm. - Color - Two dimensional	(ME/bb;db;ea)
2	4.	16 mm. - Color - Three dimensional	(ME/bb;db;eb)
2	5.	35 mm. - Black and White	(ME/bc;da)
2	6.	35 mm. - Color	(ME/bc;db)
2	7.	35 mm. - Two dimensional	(ME/bc;ea)
2	8.	35 mm. - Three dimensional	(ME/bc;eb)
2	9.	35 mm. - Black and White - Two dimensional	(ME/bc/da;ea)
3	0.	35 mm. - Black and White - Three dimensional	(ME/bc;da;eb)
3	1.	35 mm. - Color - Two dimensional	(ME/bc;db;ea)
3	2.	35 mm. - Color - Three dimensional	(ME/bc;db;eb)
3	3.	2" x 2" - Black and White	(ME/bd;da)
3	4.	2" x 2" - Color	(ME/bd;db)
3	5.	2" x 2" - Two dimensional	(ME/bd;ea)
3	6.	2" x 2" - Three dimensional	(ME/bd;eb)
3	7.	2" x 2" - Black and White - Two dimensional	(ME/bd;da;ea)
3	8.	2" x 2" - Black and White - Three dimensional	(ME/bd;da;eb)
3	9.	2" x 2" - Color - Two dimensional	(ME/bd;db;ea)
4	0.	2" x 2" - Color - Three dimensional	(ME/bd;db;eb)
4	1.	3" x 4" - Black and White	(ME/be;da)
4	2.	3" x 4" - Color	(ME/be;db)
4	3.	3" x 4" - Two dimensional	(ME/be;ea)
4	4.	3" x 4" - Three dimensional	(ME/be;eb)
4	5.	3" x 4" - Black and White - Two dimensional	(ME/be;da;ea)
4	6.	3" x 4" - Black and White - Three dimensional	(ME/be;da;eb)
4	7.	3" x 4" - Color - Two dimensional	(ME/be;db;ea)
4	8.	3" x 4" - Color - Three dimensional	(ME/be;db;eb)
4 and	9.	through 9 and 9. OTHER NON-INSTRUMENT CHARACTERISTICS	

Column 32. INSTRUMENT CHARACTERISTICS

Space 0.	Cameras	(ME/fa)
1.	Projectors	(ME/fd)
2.	Projection Screens	(ME/fj)
3.	Auxiliary Apparatus	(ME/fh)
4.-9.	Other	(ME/fi-fz)

MEDIA FACET

Aspect F - NON-PROJECTED VISUAL IMAGES

Column 33.		FORMAT CHARACTERISTICS	
Space	0.	Books	(NF/aa)
	1.	Pamphlets	(NF/ab)
	2.	Magazines	(NF/ac)
	3.	Newspapers	(NF/ad)
	4.	Wall Displays (Posters, etc.)	(NF/ae)
	5.	Chalkboards	(NF/af)
	6.	Globe	(NF/ag)
	7.-9.	Other	(NF/ah-az.)

Column 34.		CONTENT CHARACTERISTICS	
Space	0.	Text without illustrations	(NF/ba)
	1.	Illustrations without text	(NF/bb)
	2.	Text and Illustrations	(NF/bc)
	3.-9	Other	(NF/bd-bz)

Column 35.		CHROMATIC AND VISUAL DIMENSION CHARACTERISTICS	
Space	0.	Black and White - Two dimensional	(NF/da;aa)
	1.	Black and White - Three dimensional	(NF/da;ab)
	2.	Bicolor - Two dimensional	(NF/db;aa)
	3.	Bicolor - Three dimensional	(NF/db;ab)
	4.	Multi-color - Two dimensional	(NF/dc;aa)
	5.	Multi-color - Three dimensional	(NF/dc;ab)
	6.-9.	Other	(NF/da-dz;ac-az)

Aspect G - REALIA (DIRECT AURAL, VISUAL, OR TACTILE EXPERIENCE)

Column 36.		SIGHT CHARACTERISTICS	
Space	0.	Sight not augmented	(RL/aa)
	1.	Sight optically augmented	(RL/ab)
	2.	Sight electronically augmented	(RL/ac)
	3.-9.	Other	(RL/ad-az)

Column 37.		SOUND CHARACTERISTICS	
Space	0.	Sound not augmented	(RL/ba)
	1.	Sound mechanically augmented	(RL/bb)
	2.	Sound electronically augmented	(RL/bc)
	3.-9.	Other	(RL/bd-bz)

Column 38.		TACTILE CHARACTERISTICS	
Space	0.	Sense of touch involved in the experience	(RL/ca)
	1.	Sense of touch not involved in the experience	(RL/cb)
	2.-9.	Other tactile characteristics	(RL/cc-cz)

MEDIA FACET

Aspect H - TEACHING MACHINES

Columns 39 and 40. TEACHING MACHINES

Spaces	0	0.	General characteristics	(MH/a-)
	0	1.	Design characteristics	(MH/aa)
	0	2.	Programming	(MH/ab)
	0	3.	Push-button automatic testing devices	(MH/ba)
	0	4.	Punchboard testing devices	(MH/bb)
	0	5.	Chemical testing devices	(MH/bc)
	0	6.	Self-scoring testing devices	(MH/bd)
	0	7.	Automated self-instruction devices (General)	(MH/c-)
	0	8.	Self-instruction devices for verbal and symbolic subject matter	(MH/ca)
	0	9.	Language laboratories	(MH/da)
	1	0.	Self-instruction devices for non-verbal skills	(MH/cb)
	1	1.	Self instruction devices for diagnostic skills	(MH/cc)
	1 and	2 through 9 and 9.	Other characteristics	(MH/cd-zz)

Aspect I - CROSS MEDIA CHARACTERISTICS - COMBINATIONS

Columns 41 and 42. COMBINATIONS OF MEDIA

TELEVISION

Spaces	0	0.	Combinations of kinds of Television	(MI/aa)
	0	1.	Television combined with Motion Pictures	(MI/ab)
	0	2.	Television combined with Radio	(MI/ac)
	0	3.	Television combined with Sound Recordings	(MI/ad)
	0	4.	Television combined with Projected Still Pictures	(MI/ae)
	0	5.	Television combined with Books, or Non-projected Still Pictures	(MI/af)
	0	6.	Television combined with Realia	(MI/ag)
	0	7.	Television combined with Teaching Machines	(MI/ah)
	0	8-9.	Television combined with other specific media	(MI/ai-az)

MOTION PICTURES

	0	1.	Motion Pictures combined with Television	(MI/ab)
	1	0.	Combinations of kinds of Motion Pictures	(MI/bb)
	1	1.	Motion Pictures combined with Radio	(MI/bc)
	1	2.	Motion Pictures combined with Sound Recordings	(MI/bd)
	1	3.	Motion Pictures combined with Projected Still Pictures	(MI/be)
	1	4.	Motion Pictures combined with Books, or Non-projected Still Pictures	(MI/bf)
	1	5.	Motion Pictures combined with Realia	(MI/bg)
	1	6.	Motion Pictures combined with Teaching Machines	(MI/bh)
	1	7-8.	Motion Pictures combined with other specific media	(MI/bi-bz)

Aspect I - CROSS MEDIA CHARACTERISTICS - COMBINATIONS Continued

Columns 41 and 42. COMBINATIONS OF MEDIA Continued

RADIO

Spaces 0	2.	Radio combined with Television	(MI/ac)
1	1.	Radio combined with Motion Pictures	(MI/bc)
1	9.	Combinations of kinds of Radio	(MI/cc)
2	0.	Radio combined with Sound Recordings	(MI/cd)
2	1.	Radio combined with Projected Still Pictures	(MI/ce)
2	2.	Radio combined with Books, or Non-projected Still Pictures	(MI/cf)
2	3.	Radio combined with Realia	(MI/cg)
2	4.	Radio combined with Teaching Machines	(MI/ch)
2	5-7.	Radio combined with other specific media	(MI/ci-cx)

SOUND RECORDINGS

0	3.	Sound Recordings combined with Television	(MI/ad)
1	2.	Sound Recordings combined with Motion Pictures	(MI/bd)
2	0.	Sound Recordings combined with Radio	(MI/cd)
2	8.	Combinations of kinds of Sound Recordings	(MI/dd)
2	9.	Sound Recordings combined with Projected Still Pictures	(MI/de)
3	0.	Sound Recordings combined with Books, or Non-projected Still Pictures	(MI/df)
3	1.	Sound Recordings combined with Realia	(MI/dg)
3	2.	Sound Recordings combined with Teaching Machines	(MI/dh)
3	3-5.	Sound Recordings combined with other specific media	(MI/di-dx)

PROJECTED STILL PICTURES

0	4.	Projected Still Pictures combined with Television	(MI/ae)
1	3.	Projected Still Pictures combined with Motion Pictures	(MI/be)
2	1.	Projected Still Pictures combined with Radio	(MI/ce)
2	9.	Projected Still Pictures combined with Sound Recordings	(MI/de)
3	6.	Combinations of kinds of Projected Still Pictures	(MI/ee)
3	7.	Projected Still Pictures combined with Books, or Non-projected Still Pictures	(MI/ef)
3	8.	Projected Still Pictures combined with Realia	(MI/eg)
3	9.	Projected Still Pictures combined with Teaching Machines	(MI/eh)
4	0-1.	Projected Still Pictures combined with other specific media	(MI/ei-ex)

Aspect I - CROSS MEDIA CHARACTERISTICS - COMBINATIONS Continued

Columns 41 and 42. COMBINATIONS OF MEDIA Continued

BOOKS OR NON-PROJECTED STILL PICTURES

Spaces	0	5. Books, etc. combined with Television	(MI/af)
	1	4. Books, etc. combined with Motion Pictures	(MI/bf)
	2	2. Books, etc. combined with Radio	(MI/cf)
	3	0. Books, etc. combined with Sound Recordings	(MI/df)
	3	7. Books, etc. combined with Projected Still Pictures	(MI/ef)
	4	2. Combinations of kinds of Books, or Non-projected Still Pictures	(MI/ff)
	4	3. Books, etc. combined with Realia	(MI/fg)
	4	4. Books, etc. combined with Teaching Machines	(MI/fh)
	4	5-6. Books, etc. combined with other specific media	(MI/fi-fz)

REALIA

	0	6. Realia combined with Television	(MI/ag)
	1	5. Realia combined with Motion Pictures	(MI/bg)
	2	3. Realia combined with Radio	(MI/cg)
	3	1. Realia combined with Sound Recordings	(MI/dg)
	3	8. Realia combined with Projected Still Pictures	(MI/eg)
	4	3. Realia combined with Books, or Non-Projected Still Pictures	(MI/fg)
	4	7. Combinations of kinds or aspects of Realia	(MI/gg)
	4	8. Realia combined with Teaching Machines	(MI/gh)
	4	9-5-0 Realia combined with other specific media	(MI/gi-gz)

TEACHING MACHINES

	0	7. Teaching Machines combined with Television	(MI/ah)
	1	6. Teaching Machines combined with Motion Pictures	(MI/bh)
	2	4. Teaching Machines combined with Radio	(MI/ch)
	3	2. Teaching Machines combined with Sound Recordings	(MI/dh)
	3	9. Teaching Machines combined with Projected Still Pictures	(MI/eh)
	4	4. Teaching Machines combined with Books, or Non-projected Still Pictures	(MI/fh)
	4	8. Teaching Machines combined with Realia	(MI/gh)
	5	1. Combinations of kinds of Teaching Machines	(MI/hh)
	5	2-3. Teaching Machines combined with other specific media	(MI/hi-hz)

COMBINATIONS OF OTHER MEDIA

	5	4 through 9 9. Combinations of other media	(MI/i- MI/z-)

Aspect J - CROSS MEDIA CHARACTERISTICS - COMPARISONS

Columns 43 and 44. COMPARISONS OR CONTRASTS OF MEDIA

For comparisons or contrasts of media, each pair of media will be represented by the same spaces in columns 43 and 44, as they occupied for their combinations in columns 41 and 42, under Aspect I.

PROGRAM FACET

Aspect A - SUBJECTS OF EDUCATION AND INFORMATION

Columns 45 - 46 - 47. SUBJECTS

AGRICULTURAL SUBJECTS

Spaces	0	0	0.	Agricultural subjects in general	(PA/aa)
	0	0	1.	Agricultural Economics	(PA/ab)
	0	0	2.	Agronomy, Field Crops, Soil Management	(PA/ac)
	0	0	3.	Animal Husbandry	(PA/ad)
	0	0	4.	Farming	(PA/ae)
	0	0	5.	Forestry	(PA/af)
	0	0	6.	Horticulture	(PA/ag)
	0	0	7.-9.	Other Agricultural Subjects	(PA/ah-az)

ATHLETIC SUBJECTS

Spaces	0	1	0.	Athletics subjects in general	(PA/ba)
	0	1	1.	Physical Education	(PA/bb)
	0	1	2.	Recreation	(PA/bc)
	0	1	3.	Sports and Games	(PA/bd)
	0	1	4.	Skilled Physical Performance	(PA/be)
	0	1	5.-7.	Other Athletics Subjects	(PA/bf-bz)

BASIC COMMUNICATION SKILLS AS SUBJECTS

Spaces	0	1	8.	Basic communication skills in general	(PA/ca)
	0	1	9.	Reading, Remedial Reading	(PA/cb)
	0	2	0.	Speech, Public Speaking, Speech Correction	(PA/cc)
	0	2	1.	Spelling	(PA/cd)
	0	2	2.	Writing (Penmanship)	(PA/ce)
	0	2	3.	Writing (Composition)	(PA/cf)
	0	2	4.-6.	Other Basic Communication Skills	(PA/cg-cz)

BUSINESS AND COMMERCIAL SUBJECTS

Spaces	0	2	7.	Business and Commercial Subjects in general	(PA/da)
	0	2	8.	Accounting	(PA/db)
	0	2	9.	Advertising	(PA/dc)
	0	3	0.	Banking	(PA/dd)
	0	3	1.	Business Management	(PA/de)
	0	3	2.	Finance, Investment	(PA/df)
	0	3	3.	Industrial Relations	(PA/dg)
	0	3	4.	Insurance	(PA/dh)
	0	3	5.	Marketing	(PA/di)
	0	3	6.	Shorthand, Typing	(PA/dk)
	0	3	7.-9.	Other Business and Commercial Subjects	(PA/dl-dz)

PROGRAM FACET

Aspect A - SUBJECTS OF EDUCATION AND INFORMATION: Continued

Columns 45 - 46 - 47. SUBJECTS Continued

EDUCATION SUBJECTS

Spaces	0	4	0.	Education Subjects in general	(PA/ea)
	0	4	1.	Agricultural Education as a teaching field	(PA/eb)
	0	4	2.	Art Education as a teaching field	(PA/ec)
	0	4	3.	Biology as a teaching field	(PA/ed)
	0	4	4.	Business and Commercial Education as a teaching field	(PA/ee)
	0	4	5.	Chemistry as a teaching field	(PA/ef)
	0	4	6.	Counseling. Guidance	(PA/eg)
	0	4	7.	Early Childhood as a teaching field	(PA/eh)
	0	4	8.	Earth Science as a teaching field	(PA/ei)
	0	4	9.	Educational Administration	(PA/ej)
	0	5	0.	Educational Media. Audio Visual	(PA/ek)
	0	5	1.	Elementary Education as a teaching field	(PA/em)
	0	5	2.	English as a teaching field	(PA/en)
	0	5	3.	Fine Arts as a teaching field	(PA/eo)
	0	5	4.	Foreign Languages as a teaching field	(PA/ep)
	0	5	5.	Geography as a teaching field	(PA/eq)
	0	5	6.	Health Education as a teaching field	(PA/er)
	0	5	7.	History as a teaching field	(PA/es)
	0	5	8.	Home Economics as a teaching field	(PA/et)
	0	5	9.	Industrial Arts as a teaching field	(PA/eu)
	0	6	0.	Mathematics as a teaching field	(PA/ev)
	0	6	1.	Music as a teaching field	(PA/ew)
	0	6	2.	Nursery and Kindergarten as a teaching field	(PA/ex)
	0	6	3.	Physical Education as a teaching field	(PA/ey1)
	0	6	4.	Physics as a teaching field	(PA/ey2)
	0	6	5.	Recreation as a teaching field	(PA/ey3)
	0	6	6.	Science as a teaching field	(PA/ey4)
	0	6	7.	Secondary Education as a teaching field	(PA/ey5)
	0	6	8.	Social Studies as a teaching field	(PA/ey6)
	0	6	9.	Speech and Speech Correction as a teaching field	(PA/ey7)
	0	7	0.-2.	Other Education subjects	(PA/ey8+-ez)

Aspect A - SUBJECTS OF EDUCATION AND INFORMATION Continued

Columns 45 - 46 - 47. SUBJECTS Continued

ENGINEERING SUBJECTS

Spaces	0	7	3.	Engineering Subjects in general	(PA/fa)
	0	7	4.	Chemical Engineering	(PA/fb)
	0	7	5.	Civil Engineering	(PA/fc)
	0	7	6.	Electrical Engineering	(PA/fd)
	0	7	7.	Industrial Engineering	(PA/fe)
	0	7	8.	Mechanical Engineering	(PA/ff)
	0	7	9.	Refrigeration Engineering	(PA/fg)
	0	8	0.	Sanitary Engineering	(PA/fh)
	0	8	1.-3.	Other Engineering subjects	(PA/fi-fk)

FINE ARTS AND APPLIED ARTS SUBJECTS

Spaces	0	8	4.	Fine Arts and Applied Arts in general	(PA/ha)
	0	8	5.	Architecture	(PA/hb)
	0	8	6.	Art. Art Appreciation	(PA/hc)
	0	8	7.	Dramatic Arts	(PA/hd)
	0	8	8.	Music. Music Appreciation	(PA/he)
	0	8	9.	Painting	(PA/hf)
	0	9	0.	Printing	(PA/hg)
	0	9	1.	Sculpture	(PA/hh)
	0	9	2.-4.	Other Fine Arts and Applied Arts subjects	(PA/hi-hk)

HOME ECONOMICS

Spaces	0	9	5.	Home Economics in general	(PA/ia)
	0	9	6.	Child Development. Child Training	(PA/ic)
	0	9	7.	Clothing and Textiles	(PA/id)
	0	9	8.	Family Relations	(PA/ie)
	0	9	9.	Foods and Nutrition	(PA/if)
	1	0	0.	Home Decoration	(PA/ig)
	1	0	1.	Home Management	(PA/ih)
	1	0	2.-4.	Other Home Economics subjects	(PA/ij-il)

PROGRAM FACET F - 4

Aspect A - SUBJECTS OF EDUCATION AND INFORMATION Continued

Columns 45 - 46 - 47. SUBJECTS Continued

LANGUAGE AND LITERATURE SUBJECTS

Spaces	1	0	5.	Language or Literature in general	(PA/ja)
	1	0	6.	Grammar. Philology	(PA/jb)
	1	0	7.	Journalism	(PA/jc)
	1	0	8.	Literary Criticism	(PA/jd)
	1	0	9.	English Language and Literature	(PA/je)
	1	1	0.	Foreign Languages and Literatures in general	(PA/jf)
	1	1	1.	French Language and Literature	(PA/jg)
	1	1	2.	German Language and Literature	(PA/jh)
	1	1	3.	Greek Language and Literature	(PA/ji)
	1	1	4.	Italian Language and Literature	(PA/jj)
	1	1	5.	Latin Language and Literature	(PA/jk)
	1	1	6.	Russian Language and Literature	(PA/jm)
	1	1	7.	Spanish Language and Literature	(PA/jn)
	1	1	8.	Comparative Literature	(PA/jo)
	1	1	9.- 1 2 1	Other Language and Literature subjects	(PA/jp-js)

MEDICAL AND HEALTH SUBJECTS

Spaces	1	2	2.	Medical or Health subjects in general	(PA/ha)
	1	2	3.	Anatomy	(PA/hb)
	1	2	4.	Dentistry	(PA/hc)
	1	2	5.	Medical Technology	(PA/he)
	1	2	6.	Nursing	(PA/hg)
	1	2	7.	Optometry	(PA/hi)
	1	2	8.	Osteopathy	(PA/hj)
	1	2	9.	Pharmacy	(PA/hm)
	1	3	0.	Physiology	(PA/hp)
	1	3	1.	Psychiatry	(PA/hq)
	1	3	2.	Public Health	(PA/hr)
	1	3	3.	Veterinary Medicine	(PA/hs)
	1	3	4.-6.	Other Medical and Health subjects	(PA/ht-hz)

PROGRAM FACET F - 3

Aspect A - SUBJECTS OF EDUCATION AND INFORMATION Continued

Columns 45 - 46 - 47. SUBJECTS Continued

MILITARY SUBJECTS

Spaces	1	3	7.	Military subjects in general	(PA/ma)
	1	3	8.	Air Force education and training - Officers	(PA/mb)
	1	3	9.	Air Force education and training - Enlisted personnel	(PA/mc)
	1	4	0.	Army education and training - Officers	(PA/me)
	1	4	1.	Army education and training - Enlisted personnel	(PA/mf)
	1	4	2.	Marines education and training - Officers	(PA/mh)
	1	4	3.	Marines education and training - Enlisted personnel	(PA/mi)
	1	4	4.	Navy education and training - Officers	(PA/mk)
	1	4	5.	Navy education and training - Enlisted personnel	(PA/mm)
	1	4	6.	Logistics	(PA/mn)
	1	4	7.	Tactics	(PA/mp)
	1	4	8.	Weapons and equipment	(PA/mq)
	1	4	9.-1 5 1	Other Military subjects	(PA/mr-mx)

RELIGIOUS SUBJECTS

Spaces	1	5	2.	Religion in general	(PA/na)
	1	5	3.	Bible. Koran. Sacred Books	(PA/nb)
	1	5	4.	Comparative Religion	(PA/nd)
	1	5	5.	Religious education and training	(PA/ne)
	1	5	6.	Theology	(PA/ng)
	1	5	7.	Mythology	(PA/nh)
	1	5	8.-1 6 0	Other Religious subjects	(PA/ni-nn)

PROGRAM FACET

Aspect A - SUBJECTS OF EDUCATION AND INFORMATION Continued

Columns 45 - 46 - 47. **SUBJECTS Continued**

SCIENCE SUBJECTS

Spaces	1	6	1.	Science in general	(PA/sa)
	1	6	2.	Aeronautics	(PA/sb)
	1	6	3.	Astronautics	(PA/sc)
	1	6	4.	Astronomy	(PA/sd)
	1	6	5.	Bacteriology	(PA/se)
	1	6	6.	Biology	(PA/sf)
	1	6	7.	Botany	(PA/sg)
	1	6	8.	Chemistry	(PA/sh)
	1	6	9.	Crystallography	(PA/si)
	1	7	0.	Ethnology	(PA/sj)
	1	7	1.	Geology, Earth Sciences	(PA/sk)
	1	7	2.	Mathematics	(PA/sm)
	1	7	3.	Meteorology	(PA/sn)
	1	7	4.	Mineralogy	(PA/so)
	1	7	5.	Natural History	(PA/sp)
	1	7	6.	Paleontology	(PA/sq)
	1	7	7.	Petrology	(PA/sr)
	1	7	8.	Physics	(PA/ss)
	1	7	9.	Zoology	(PA/st)
	1	8	0.-2.	Other Science subjects	(PA/su-sw)

SOCIAL SCIENCE SUBJECTS

Spaces	1	8	3.	Social Science in general	(PA/pa)
	1	8	4.	American Civilization and Culture	(PA/pb)
	1	8	5.	Anthropology	(PA/pc)
	1	8	6.	Archaeology	(PA/pd)
	1	8	7.	Biography	(PA/pe)
	1	8	8.	Economics	(PA/pf)
	1	8	9.	Geography	(PA/pg)
	1	9	0.	History	(PA/ph)
	1	9	1.	International Relations	(PA/pi)
	1	9	2.	Law	(PA/pj)
	1	9	3.	Library Science	(PA/pk)
	1	9	4.	Philosophy	(PA/pm)
	1	9	5.	Political Science	(PA/pn)
	1	9	6.	Psychology	(PA/po)
	1	9	7.	Public Administration	(PA/pp)
	1	9	8.	Social Work and Administration	(PA/pq)
	1	9	9.	Sociology	(PA/pr)
	2	0	0.-2 0 2	Other Social Science subjects	(PA/ps-pu)

PROGRAM FACET

Aspect A - SUBJECTS OF EDUCATION AND INFORMATION Continued

Columns 45 - 46 - 47.

OTHER SUBJECTS

Spaces 2 0 1.- 9 9 9 To be assigned as needed (2A/q- 9A/z-)

Aspect B.- CHARACTERISTICS OF PRESENTATION

Column 48.

EFFECT OF NON-CONTENT FACTORS

Space	0.	Effect of personality of communicator	(PB/aa)
	1.	Effect of color versus black and white	(PB/ab)
	2.	Effect of order and time	(PB/ac)
	3.	Effect of pictures versus words	(PB/ad)
	4.	Effect of repetition	(PB/ae)
	5.	Effect of size and shape	(PB/af)
	6.-9.	Other effects	(PB/ag-az)

Column 49.

OBSERVATIONAL CHARACTERISTICS

Space	0.	Angle of hearing or viewing	(PB/ba)
	1.	Distance of hearing or viewing	(PB/bb)
	2.	Height of hearing or viewing	(PB/bc)
	3.	Illumination of hearing or viewing	(PB/bd)
	4.	Size of image viewed	(PB/be)
	5.	Volume of sound	(PB/bf)
	6.-9.	Other observational characteristics	(PB/bg-bz)

RESEARCH FACET

Aspect A - TYPE OF STUDY

Column 30. STUDY BASED ON PERSONAL OPINION AND DESCRIPTION

Space	0.	Definitions of values and assumptions	(RA/aa)
	1.	Lay opinion, speculation, or description	(RA/ab)
	2.	Expert opinion, or description	(RA/ac)
	3.-9.	Other	(RA/ad-az)

Column 31. STUDY BASED ON HISTORICAL ANALYSIS

Space	0.	Descriptive or narrative account	(RA/ba)
	1.	Organized, evaluated analysis of trends or sequences	(RA/bb)
	2.-9.	Other	(RA/bc-bz)

Column 32. STUDY BASED ON PATTERNED INQUIRY

Space	0.	The Survey	(RA/ca)
	1.	The Experiment	(RA/cb)
	2.	Causal-Comparative and Correlation Methods	(RA/cc)
	3.	Case studies	(RA/cd)
	4.-9.	Other	(RA/ce-cz)

Aspect B - TESTS

Columns 33 and 34. KINDS OF TESTS

Spaces	0	0.	Attitude scales and tests	(RB/aa)
	0	1.	Completion tests	(RB/ab)
	0	2.	Elimination tests	(RB/ac)
	0	3.	Essay tests	(RB/ad)
	0	4.	Frustration tolerance tests	(RB/ae)
	0	5.	Interest blanks and tests	(RB/af)
	0	6.	Interview (Ratings)	(RB/ag)
	0	7.	Motor skill tests	(RB/ah)
	0	8.	Multiple choice tests	(RB/ai)
	0	9.	Open-ended questionnaires	(RB/aj)
	1	0.	Opinion questionnaires	(RB/ak)
	1	1.	Oral performance tests	(RB/al)
	1	2.	Personality tests	(RB/am)
	1	3.	Projective tests	(RB/an)
	1	4.	Psychological tests	(RB/ao)
	1	5.	Ratings of group behavior	(RB/ap)
	1	6.	Recognition tests	(RB/aq)
	1	7.	Situational tests	(RB/ar)
	1	8.	~~True-false tests~~	(RB/as)
	1	9.	Verbal performance tests	(RB/at)
	2	0.	Vocabulary tests	(RB/au)
	2	1. through 9	9. Other tests	(RB/av-az)

Columns 35 through 80 - Reserved for expansion

V

EXPLORATORY SUBJECT HEADING LIST

Allied to a classification system, with its proper schedules and index, is the so-called subject heading list, as used in library terminology. The subject heading list contains terms denoting subjects under which publications of various kinds are entered in a catalog. The list may be applied in either a book or a card catalog. The terms are arranged alphabetically, instead of systematically as in a classification, and certain cross-references which serve to integrate them. The selection of the headings to be included in a subject head list is a delicate task, requiring a clear knowledge of the field and a feeling for distinction between overlapping, similar, and synonymous terms. The task requires a coordination between the classification system used and the subject content of the materials--in educational media, such items as reports, dissertations, periodical articles, monographs, treatises, etc.

The accompanying subject heading list, like the classification schedules, is not intended to be a finished product. As in the case of the classification, the consultants found that terms were used loosely and differently by the various workers in the field. The resultant exploratory list is merely an effort to bring some semblance of order out of what was found in the field. The several efforts of practitioners and others in the field, as well as terms used in standard subject heading lists (especially that of the Library of Congress) and special lists, were useful in this compilation. Undoubtedly, as the staff of the proposed Information Service work further on this problem, there will be a refinement in the terms included, as well as the precise writing of scope notes. Neither of these efforts were possible. A subject heading approach, however, is feasible, and the future work on this list should help to stabilize the nomenclature of the field. In itself, the stabilization of nomenclature for a particular field is a useful guide in the spurring of research, since the terms provide a basis for the understanding of relationships. This is true, of course, of the classification of the field as well.

The subject heading list prepared for this report contains basic terms in all educational media, but there has been no effort to expand this to the total field of communications arts. In time, this list may be expanded in this direction. The list contains apparent cross-references observed by the consultants during the compilation, but no claim is made that all necessary references are included at this point. Indeed, there may be terms included that perhaps are too general for the purposes of the list. It is assumed that a rigorous revision of the terms will be made by the staff of the Information Service.

SUBJECT HEADINGS
FOR
EDUCATIONAL MEDIA RESEARCH

SUBJECT HEADINGS
for
EDUCATIONAL MEDIA RESEARCH

A

Achievement tests. See TESTS - ACHIEVEMENT

Activities, Visit to scene of. See VISITS, EDUCATIONAL, AS EDUCATIONAL LOCALE

Actual objects. See REALIA

Adolescents. See appropriate educational-level headings, e.g. HIGH SCHOOL

ADULT EDUCATION PROGRAMS

Adults. See appropriate educational-level headings, e.g. DOCTORAL DEGREE PROGRAMS; also GENERAL PUBLIC AS AUDIENCE

Administration of educational media programs. See EDUCATIONAL MEDIA PROGRAMS - ADMINISTRATION

ADVERTISING AND ADVERTISEMENTS. See also PROPAGANDA TECHNIQUES

Air Force personnel. See MILITARY EDUCATION AND TRAINING

AM radio. See RADIO - AM

Amplitude modulation radio. See RADIO - AM

Angle of hearing or viewing. See under EDUCATIONAL MEDIA PROGRAMS - PHYSICAL CONDITIONS

Animated films. See MOTION PICTURES - ANIMATED

Apparatus for educational media. See subheading - EQUIPMENT under names of media. E.g. MOTION PICTURES - EQUIPMENT

AQUARIA

Armed forces personnel. See MILITARY EDUCATION AND TRAINING

Army personnel. See MILITARY EDUCATION AND TRAINING

Art exhibitions. See EXHIBITS AS VISUAL AIDS

Assembly, Outdoor. See OUTDOOR ASSEMBLY AS EDUCATIONAL LOCALE

Assembly hall. See AUDITORIUM AS EDUCATIONAL LOCALE

SUBJECT HEADINGS

ATHLETIC GAMES. See also GAMES (NON-ATHLETIC)

Attention of audience. See AUDIENCE - ATTENTION

Attitudes of audience. See AUDIENCE - ATTITUDES

Attitude tests and scales. See TESTS - ATTITUDE

AUDIENCE (General discussions)

- Adult education programs. See ADULT EDUCATION PROGRAMS
- ATTENTION
- ATTITUDES
- College. See COMMUNITY COLLEGE; JUNIOR COLLEGE; UNDERGRADUATE COLLEGE (4-year)
- DEMOGRAPHIC CHARACTERISTICS
- Doctoral degree students. See DOCTORAL DEGREE PROGRAMS
- ECONOMIC CHARACTERISTICS
- Educational characteristics. See PRE-SCHOOL PROGRAMS
  - KINDERGARTEN
  - ELEMENTARY SCHOOL
  - JUNIOR HIGH SCHOOL
  - HIGH SCHOOL
  - JUNIOR COLLEGE
  - COMMUNITY COLLEGE
  - UNDERGRADUATE COLLEGE (4-year)
  - FIFTH-YEAR BACHELORS DEGREE PROGRAMS
  - MASTERS DEGREE PROGRAMS
  - DOCTORAL DEGREE PROGRAM
  - POST-DOCTORAL PROGRAMS
  - PROFESSIONAL-SCHOOL PROGRAMS
  - MILITARY EDUCATION AND TRAINING
  - RELIGIOUS EDUCATION AND TRAINING
  - VOCATIONAL EDUCATION AND TRAINING
- Elementary school. See ELEMENTARY SCHOOL

SUBJECT HEADINGS

AUDIENCE - Environment. See specific educational environments:
AUDITORIUM AS EDUCATIONAL LOCALE
CLASSROOM AS EDUCATIONAL LOCALE
HOME AS EDUCATIONAL LOCALE
LABORATORY AS EDUCATIONAL LOCALE
MONITOR ROOM AS EDUCATIONAL LOCALE
NATURE HIKES AS EDUCATIONAL LOCALE
OUTDOOR ASSEMBLY AS EDUCATIONAL LOCALE
TELEVISION STUDIO AS EDUCATIONAL LOCALE
VISITS, EDUCATIONAL, AS EDUCATIONAL LOCAle

- ETHNIC CHARACTERISTICS

- Fifth-year bachelors degree programs. See FIFTH-YEAR BACHELORS DEGREE PROGRAMS

- GEOGRAPHICAL CHARACTERISTICS. See also specific educational environments listed under AUDIENCE - Environment

- High school. See HIGH SCHOOL

- INTELLIGENCE

- Junior college. See JUNIOR COLLEGE

- Junior high school. See JUNIOR HIGH SCHOOL

- MARITAL CHARACTERISTICS

- Masters degree programs. See MASTERS DEGREE PROGRAMS

- Military schools. See MILITARY EDUCATION AND TRAINING

- MOTIVATION

- OCCUPATIONAL CHARACTERISTICS

- Pre-school programs. See PRE-SCHOOL PROGRAMS

- Post-doctoral programs. See POST-DOCTORAL PROGRAMS

- Professional-school programs. See PROFESSIONAL-SCHOOL PROGRAMS

- PSYCHOLOGICAL CHARACTERISTICS.
  See also AUDIENCE - INTELLIGENCE

- RELIGIOUS CHARACTERISTICS

- Religious schools. See RELIGIOUS EDUCATION AND TRAINING

SUBJECT HEADINGS

AUDIENCE - SEX CHARACTERISTICS

SIZE CHARACTERISTICS (General)
- 1 to 50
- 51 to 100
- 101 to 500
- 501 to 1,000
- 1,001 and larger

- Undergraduate college. See COMMUNITY COLLEGE
JUNIOR COLLEGE
UNDERGRADUATE COLLEGE (4-year)

- Vocational schools. See VOCATIONAL EDUCATION AND TRAINING

Audio characteristics. See subdivisions - AUDIO CHARACTERISTICS; and -SOUND under names of media, e.g. MOTION PICTURES - SOUND
RADIO - AUDIO CHARACTERISTICS

Audio tape recordings. See SOUND RECORDINGS - TAPE

AUDITORIUM AS EDUCATIONAL LOCALE

B

Bachelors degree students. See COMMUNITY COLLEGE
FIFTH-YEAR BACHELORS PROGRAMS
JUNIOR COLLEGE
UNDERGRADUATE COLLEGE (4-year)

Behavior, Group. See GROUP BEHAVIOR

BINOCULARS

Black and white pictures. See subdivision - BLACK AND WHITE under names of media, e.g. MOTION PICTURES - BLACK AND WHITE

Black and white vs. color. See under EDUCATIONAL MEDIA PROGRAMS - PHYSICAL CONDITIONS

Blackboards. See CHALKBOARDS AS VISUAL MEDIA

Book readers as audience. See GENERAL PUBLIC AS AUDIENCE

BOOKS. See also CARTOONS AND COMIC BOOKS; PICTURE BOOKS; TEXTBOOKS

Boys as audience. See AUDIENCE - SEX CHARACTERISTICS

Budgets for educational media programs. See EDUCATIONAL MEDIA PROGRAMS - ADMINISTRATION - BUDGETS

Buildings, Visits to. See VISITS, EDUCATIONAL, AS EDUCATIONAL LOCALE

SUBJECT HEADINGS

C

Cameras. See subdivision - EQUIPMENT under names of media, e.g.
MOTION PICTURES - EQUIPMENT

CARTOONS AND COMIC BOOKS. See also MOTION PICTURES - ANIMATED

Case study. See RESEARCH METHODS - CASE STUDY

Causal-Comparative Method. See RESEARCH METHODS - CAUSAL COMPARATIVE

CHALKBOARDS AS VISUAL MEDIA

CHARTS AS VISUAL MEDIA

Children as audience. See PRE-SCHOOL PROGRAMS
KINDERGARTEN
ELEMENTARY SCHOOL
JUNIOR HIGH SCHOOL

CLASSROOM AS EDUCATIONAL LOCALE. See also MONITOR ROOM AS EDUCATIONAL LOCALE

Closed circuit television. See TELEVISION - CLOSED CIRCUIT

College Audience. See COMMUNITY COLLEGE
JUNIOR COLLEGE
UNDERGRADUATE COLLEGE (4-year)

Color pictures. See subdivision - COLOR under names of media, e.g.
MOTION PICTURES - COLOR

Comic books. See CARTOONS AND COMIC BOOKS

COMMUNITY COLLEGE. See also JUNIOR COLLEGE
UNDERGRADUATE COLLEGE (4-year)

Completion tests. See TESTS - COMPLETION

Concerts. See MUSICAL PRESENTATIONS

Control groups. See TEST AND CONTROL GROUPS

D

DANCE PRESENTATIONS

Delayed recall. See MEMORY - DELAYED RECALL

Demographic characteristics of audience. See AUDIENCE - DEMOGRAPHIC CHARACTERISTICS

SUBJECT HEADINGS

DIAGRAMS AS VISUAL MEDIA

DIORAMAS AS VISUAL MEDIA

Direct experience. See REALIA

Disc recordings. See SOUND RECORDINGS - DISCS

Distance of hearing or viewing. See under EDUCATIONAL MEDIA PROGRAMS - PHYSICAL CONDITIONS

DOCTORAL DEGREE PROGRAMS

DOCUMENTARY PRESENTATIONS

DRAMATIC PRESENTATIONS

DRAWINGS AS VISUAL MEDIA

E

Economic characteristics of audience. See AUDIENCE - ECONOMIC CHARACTERISTICS

Educational characteristics of audience. See references under AUDIENCE - Educational Characteristics

Educational environments. See references under AUDIENCE - Environment

EDUCATIONAL MEDIA PROGRAMS (General)
- ADMINISTRATION (General)
  - BUDGETS
  - Equipment. See subdivision -EQUIPMENT under names of media.
  - OPERATIONS
  - PERSONNEL
  - QUARTERS
- ATTITUDES (General)
  - OF ADMINISTRATORS
  - of students. See AUDIENCE - ATTITUDES
  - OF TEACHERS

EDUCATIONAL MEDIA PROGRAMS (General)
- PHYSICAL CONDITIONS (General)
  - ANGLE OF VIEWING OR HEARING
  - BLACK AND WHITE vs. COLOR
  - DISTANCE OF VIEWING OR HEARING
  - HEIGHT OF APPARATUS
  - ILLUMINATION
  - SIZE OF IMAGE
  - SOUND vs. SILENT
  - VOLUME OF SOUND
- Subjects of instruction of experimentation. (To be added to subject heading list directly under name, as needed, e.g. ACCOUNTING
  HISTORY
  SEWING, etc.)

Educational visits. See VISITS, EDUCATIONAL, AS EDUCATIONAL LOCALE

ELEMENTARY SCHOOL

Elimination tests. See TESTS - ELIMINATION

Equipment and materials. See subdivision - EQUIPMENT under names of media, e.g. MOTION PICTURES - EQUIPMENT

Essay tests. See TESTS - ESSAY

Ethnic characteristics of audience. See AUDIENCE - ETHNIC CHARACTERISTICS

EXHIBITS AS VISUAL MEDIA

Experimental method. See RESEARCH METHODS - EXPERIMENTAL

Expert opinion or description. See RESEARCH METHODS - EXPERT OPINION OR DESCRIPTION

F

Field trip. See NATURE HIKES AS EDUCATIONAL LOCALE
VISITS, EDUCATIONAL, AS EDUCATIONAL LOCALE

FIFTH-YEAR BACHELORS DEGREE PROGRAMS

FILMSTRIPS (General). See also SLIDES
- BLACK AND WHITE
- COLOR
- EQUIPMENT

SUBJECT HEADINGS

Flat pictures. See specific forms, e.g. CHARTS AS VISUAL MEDIA
DIAGRAMS AS VISUAL MEDIA
DRAWINGS AS VISUAL MEDIA
GRAPHS AS VISUAL MEDIA
MAPS
PAINTINGS
PHOTOGRAPHS
POSTERS AS VISUAL MEDIA
PRINTS AS VISUAL MEDIA

FM radio. See RADIO - FM

Frequency modulation radio. See RADIO - FM

Frustration tolerance tests. See TESTS - FRUSTRATION TOLERANCE

G

GAMES (NON-ATHLETIC). See also ATHLETIC GAMES

GENERAL PUBLIC AS AUDIENCE

Geographical characteristics of audience. See AUDIENCE - GEOGRAPHICAL CHARACTERISTICS

Girls as audience. See AUDIENCE - SEX CHARACTERISTICS

GLOBES AS VISUAL MEDIA

Grammar school students. See ELEMENTARY SCHOOL

GRAPHS AS VISUAL MEDIA

GROUP BEHAVIOR -

H

Hall, Lecture, as educational locale. See AUDITORIUM AS EDUCATIONAL LOCALE

HEARING COMPREHENSION

Height of hearing or viewing apparatus. See under EDUCATIONAL MEDIA PROGRAMS - PHYSICAL CONDITIONS

HIGH SCHOOL. See also JUNIOR HIGH SCHOOL

Hikes. See NATURE HIKES AS EDUCATIONAL LOCALE

Historical analysis method. See RESEARCH METHODS - HISTORICAL ANALYSIS

SUBJECT HEADINGS

HOME AS EDUCATIONAL LOCALE

I

Illumination. See under EDUCATIONAL MEDIA PROGRAMS - PHYSICAL CONDITIONS

ILLUSTRATIONS IN BOOKS. See also PICTURE BOOKS

IMAGERY (General)
    - MANUMOTOR
    - VISUAL
    - VOCOMOTOR

Immediate recall. See MEMORY - IMMEDIATE RECALL

Income of audience. See AUDIENCE - ECONOMIC CHARACTERISTICS

Individual slides. See SLIDES

Individual station. See RADIO - INDIVIDUAL STATION
TELEVISION - INDIVIDUAL STATION

Infants as audience. See PRE-SCHOOL PROGRAMS

Instructional environment. See references under AUDIENCE - Environment

Instructors. See TEACHERS

Intelligence of audience. See AUDIENCE - INTELLIGENCE

Intelligence tests. See TESTS - INTELLIGENCE

Interview ratings. See TESTS - INTERVIEW RATINGS AND SCALES

J

Journeys. School. See NATURE HIKES AS EDUCATIONAL LOCALE; VISITS, EDUCATIONAL, AS EDUCATIONAL LOCALE

JUNIOR COLLEGE. See also COMMUNITY COLLEGE

JUNIOR HIGH SCHOOL

KINDERGARTEN

Kinescope. See TELEVISION - KINESCOPE RECORDINGS

L

LABORATORY AS EDUCATIONAL LOCALE

Laborers as audience. See AUDIENCE - OCCUPATIONAL CHARACTERISTICS

LANGUAGE COMPREHENSION

LANGUAGE LABORATORIES. See also TEACHING MACHINES

Lay opinion or description. See RESEARCH METHODS - LAY OPINION OR DESCRIPTION

Learning environment, Attitudes toward. See EDUCATIONAL MEDIA PROGRAMS - ATTITUDES

Learning environment, Characteristics of. See references under AUDIENCE - Environment

Lecture hall. See AUDITORIUM AS EDUCATIONAL LOCALE

LECTURE METHOD OF TEACHING

LISTENING AS AN EDUCATIONAL ACTIVITY

Live television performance. See TELEVISION - LIVE PERFORMANCE

Loud speakers. See subdivision - EQUIPMENT under names of media, e.g. RADIO - EQUIPMENT

M

Machines, Reading. See READING MACHINES (Microfilm, etc.)

Machines, Teaching. See TEACHING MACHINES; SELF-INSTRUCTIONAL DEVICES; SELF-TESTING DEVICES; TESTING DEVICES

Magnetic tape. See SOUND RECORDINGS - TAPE; TELEVISION - VIDEOTAPE RECORDING

MAPS

Marines personnel as audience. See MILITARY EDUCATION AND TRAINING

Marital characteristics of audience. See AUDIENCE - MARITAL CHARACTERISTICS

MASTERS DEGREE PROGRAMS

Materials and equipment. See subdivision - EQUIPMENT under names of media, e.g. MOTION PICTURES - EQUIPMENT

SUBJECT HEADINGS

MEMORIZING AS A LEARNING ACTIVITY

MEMORY (General)
- AUDITORY
- DELAYED RECALL
- IMMEDIATE RECALL
- MATERIAL (To be subdivided as needed, e.g.
  MEMORY - MATERIAL - CONCRETE NOUNS
  MEMORY - MATERIAL - MEANINGFUL CONNECTED MATE
  MEMORY - MATERIAL - NUMBERS
  MEMORY - MATERIAL - NONSENSE SYLLABLES, etc.)
- RECOGNITION
- VISUAL
- Vocal. See MEMORY - AUDITORY

Men as audience. See AUDIENCE - SEX CHARACTERISTICS

MICROCARDS

MICROFICHES

MICROFILMS

Microphones. See subdivision - EQUIPMENT under names of media, e.g.
RADIO - EQUIPMENT

MICROPRINTS

MILITARY EDUCATION AND TRAINING

MOCKUPS

MODELS

MONITOR ROOM AS EDUCATIONAL LOCALE. See also CLASSROOM AS EDUCATIONAL LOCALE

Monochrome pictures. See subdivision - BLACK AND WHITE under names of media,
e.g. SLIDES - BLACK AND WHITE

Motion picture patrons as audience. See GENERAL PUBLIC AS AUDIENCE

MOTION PICTURES (General)
- ANIMATED
- AUDIO CHARACTERISTICS. See also MOTION PICTURES - SOUND
- BLACK AND WHITE
- Cameras. See MOTION PICTURES - EQUIPMENT
- Cartoons. See MOTION PICTURES - ANIMATED
- COLOR

SUBJECT HEADINGS

MOTION PICTURES - EQUIPMENT
- Projectors. See MOTION PICTURES - EQUIPMENT
- Screens. See MOTION PICTURES - EQUIPMENT
- SILENT
- SOUND
- SOUND - STEREOPHONIC
- THREE-DIMENSIONAL
- VISUAL CHARACTERISTICS. See also MOTION PICTURES - BLACK AND WHITE
COLOR

Motivation of audience. See AUDIENCE - MOTIVATION

MOTOR SKILLS (General)
- PERCEPTUAL
- SENSORY

Moving pictures. See MOTION PICTURES

Multiple choice tests. See TESTS - MULTIPLE CHOICE

Museum exhibitions. See EXHIBITS AS VISUAL MEDIA

MUSICAL PRESENTATIONS

N

NATURE HIKES AS EDUCATIONAL LOCALE. See also VISITS, EDUCATIONAL LOCALE

Navy personnel as audience. See MILITARY EDUCATION AND TRAINING

NEWS PRESENTATIONS

Network radio. See RADIO - NETWORK

Network television. See TELEVISION - NETWORK

Newspaper readers as audience. See GENERAL PUBLIC AS AUDIENCE

NEWSPAPERS

O

Objective tests. See TESTS - OBJECTIVE

Objects, Actual. See REALIA

Occupational characteristics of audience. See AUDIENCE - OCCUPATIONAL CHARACTERISTICS

OPAQUE PROJECTORS

Open circuit television. See TELEVISION - OPEN CIRCUIT

Opinions of audience. See AUDIENCE - ATTITUDES

Oral performance tests. See TESTS - ORAL

ORDER AND TIME OF PRESENTATION, EFFECTS OF

OUTDOOR ASSEMBLY AS EDUCATIONAL LOCALE

OVERHEAD PROJECTORS

P

PAINTINGS

PAMPHLETS

Perceptual motor skills. See MOTOR SKILLS - PERCEPTUAL

Personal opinion reports. See RESEARCH METHODS - EXPERT OPINION OR DESCRIPTION
RESEARCH METHODS - LAY OPINION OR DESCRIPTION

Phonorecords. See SOUND RECORDINGS - DISCS

Phonotape. See SOUND RECORDINGS - TAPE

PHOTOGRAPHS (General). See also FILMSTRIPS; MOTION PICTURES; SLIDES
- BLACK AND WHITE
- COLOR
- EQUIPMENT

PICTURE BOOKS

Pictures, Moving. See MOTION PICTURES

Pictures, Still. See references under entry for Still pictures

Plays. See DRAMATIC PRESENTATIONS

POST-DOCTORAL PROGRAMS

POSTERS AS VISUAL MEDIA

PRE-SCHOOL PROGRAMS

Prejudices of audience. See AUDIENCE - ATTITUDES

PRINTS AS VISUAL MEDIA

PROFESSIONAL-SCHOOL PROGRAMS

SUBJECT HEADINGS

Projectors. See OPAQUE PROJECTORS; OVERHEAD PROJECTORS; also subdivision - EQUIPMENT under names of media, e.g. MOTION PICTURES - EQUIPMENT.

PRONUNCIATION

PROPAGANDA TECHNIQUES. See also ADVERTISING AND ADVERTISEMENTS

Psychological characteristics of audience. See AUDIENCE - INTELLIGENCE; AUDIENCE - PSYCHOLOGICAL CHARACTERISTICS

Public, General, as audience. See GENERAL PUBLIC AS AUDIENCE

Punchboards. See SELF-TESTING DEVICES

Pupils. See AUDIENCE

Push-button devices for self-testing. See SELF-TESTING DEVICES

R

RADIO (General)
- AM (Amplitude modulation)
- AUDIO CHARACTERISTICS
- EQUIPMENT
- FM (Frequency modulation)
- INDIVIDUAL STATION
- NETWORK
- STEREOPHONIC

Radio listeners as audience. See GENERAL PUBLIC AS AUDIENCE

Readers as audience. See GENERAL PUBLIC AS AUDIENCE

READING (General)
- ABILITY
- COMPREHENSION
- ORAL
- Retention. See MEMORY
- SILENT

READING MACHINES (Microfilm, etc.)

REALIA (General)
- AUDIO CHARACTERISTICS
- EQUIPMENT
- TACTILE CHARACTERISTICS
- VISUAL CHARACTERISTICS

Recall. See MEMORY

Receivers. See RADIO - EQUIPMENT; TELEVISION - EQUIPMENT

RECITATIONS

Recognition. See MEMORY - RECOGNITION

Recordings. See SOUND RECORDINGS; TELEVISION - KINESCOPE RECORDINGS; TELEVISION - VIDEOTAPE RECORDINGS

Religious characteristics of audience. See AUDIENCE - RELIGIOUS CHARACTERISTICS

RELIGIOUS EDUCATION AND TRAINING

REPETITION OF PRESENTATION, EFFECTS OF

RESEARCH METHODS (General)
- CASE STUDY
- CAUSAL-COMPARATIVE
- EXPERIMENTAL
- EXPERT OPINION OR DESCRIPTION
- HISTORICAL ANALYSIS
- LAY OPINION OR DESCRIPTION
- SURVEY

Retention. See MEMORY

R.O.T.C. See MILITARY EDUCATION AND TRAINING

S

Scale models. See MODELS

Scene of activities, Visits to. See VISITS, EDUCATIONAL, AS EDUCATIONAL LOCALE

School journeys. See NATURE HIKES AS EDUCATIONAL LOCALE.
VISITS, EDUCATIONAL, AS EDUCATIONAL LOCALE

Screens. See subdivision - EQUIPMENT under names of media, e.g. MOTION PICTURES - EQUIPMENT

Secondary school audience. See HIGH SCHOOL; JUNIOR HIGH SCHOOL

SELF-INSTRUCTIONAL DEVICES

SELF-TESTING DEVICES. See also TEACHING MACHINES; TESTING DEVICES

Sensory motor skills. See MOTOR SKILLS - SENSORY

Services, Visits to scenes of. See VISITS, EDUCATIONAL, AS EDUCATIONAL LOCALE

SUBJECT HEADINGS

Sex characteristics of audience. See AUDIENCE - SEX CHARACTERISTICS

Silent moving pictures. See MOTION PICTURES - SILENT

SIMULCAST (Radio and television)

Situational tests. See TESTS - SITUATIONAL

Sizes of audience. See AUDIENCE - SIZE CHARACTERISTICS

Sizes of images. See under EDUCATIONAL MEDIA PROGRAMS - PHYSICAL CONDITIONS

Skills, Motor. See MOTOR SKILLS

SLIDES (General). See also FILMSTRIPS
- BLACK AND WHITE
- COLOR
- EQUIPMENT

Sound moving pictures. See MOTION PICTURES - SOUND

SOUND RECORDINGS (General). See also TELEVISION - KINESCOPE RECORDINGS
TELEVISION - VIDEOTAPE RECORDINGS
- DISCS
- EQUIPMENT
- STEREOPHONIC
- TAPE

Sound, Volume of. See under EDUCATIONAL MEDIA PROGRAMS - PHYSICAL CONDITIONS

Sound vs. Silent. See under EDUCATIONAL MEDIA PROGRAMS - PHYSICAL CONDITIONS

SPEAKING AS AN EDUCATIONAL ACTIVITY

SPEECH, INTELLIGIBILITY OF

SPELLING

Sports and games. See ATHLETIC GAMES; GAMES (NON-ATHLETIC)

Stereophonic sound. See subdivision - STEREOPHONIC under names of media, e.g. SOUND RECORDINGS - STEREOPHONIC

STEREOSCOPES AS VISUAL MEDIA

SUBJECT HEADINGS

Still pictures. See CHARTS AS VISUAL MEDIA
DIAGRAMS AS VISUAL MEDIA
DRAWINGS AS VISUAL MEDIA
FILMSTRIPS
GRAPHS AS VISUAL MEDIA
ILLUSTRATIONS IN BOOKS
MAPS
PAINTINGS
PICTURE BOOKS
PHOTOGRAPHS
POSTERS AS VISUAL MEDIA
PRINTS AS VISUAL MEDIA
SLIDES

Students. See AUDIENCE

Studio as educational locale. See TELEVISION STUDIO AS EDUCATIONAL LOCALE

STUDY GUIDES. See also Syllabi

Survey method. See RESEARCH METHODS - SURVEY

SYLLABI. See also STUDY GUIDES

T

Tape recorders. See SOUND RECORDINGS - EQUIPMENT

Tape recordings. See SOUND RECORDINGS - TAPE
TELEVISION - VIDEOTAPE RECORDINGS

TEACHERS (General) See also under EDUCATIONAL MEDIA PROGRAMS
- ABILITY. See also TEACHING, EFFECTIVENESS OF
- Attitudes. See under EDUCATIONAL MEDIA PROGRAMS - ATTITUDES
- TRAINING. See also EDUCATIONAL MEDIA PROGRAMS - ADMINISTRATION - PERSONNEL

TEACHING, EFFECTIVENESS OF

TEACHING MACHINES. See also SELF INSTRUCTIONAL DEVICES; SELF-TESTING DEVICES; TESTING DEVICES

TELEVISION (General)
- AUDIO CHARACTERISTICS
- BLACK AND WHITE
- CLOSED CIRCUIT
- COLOR

TELEVISION
- EQUIPMENT
- INDIVIDUAL STATION
- KINESCOPE RECORDINGS
- LIVE PERFORMANCE
- NETWORK
- OPEN CIRCUIT
- STEREOPHONIC
- Tape. See TELEVISION _VIDEOTAPE RECORDINGS
- U.H.F. (Ultra high frequency)
- V.H.F. (Very high frequency)
- VIDEOTAPE RECORDINGS
- VISUAL CHARACTERISTICS

TELEVISION STUDIO AS EDUCATIONAL LOCALE

Television viewers as audience. See GENERAL PUBLIC AS AUDIENCE

TERRARIUMS

TEST AND CONTROL GROUPS

TESTING DEVICES. See also SELF-TESTING DEVICES: TEACHING MACHINES

TESTS (General)
- ACHIEVEMENT
- ATTITUDE
- COMPLETION
- ELIMINATION
- ESSAY
- FRUSTRATION TOLERANCE
- INTELLIGENCE
- INTERVIEW RATINGS AND SCALES
- MULTIPLE CHOICE
- OBJECTIVE
- ORAL
- SITUATIONAL
- TRUE-FALSE
- VERBAL PERFORMANCE
- VOCABULARY

Note: -TESTS may be used as a subdivision with any appropriate heading, e.g. MEMORY - DELAYED RECALL - TESTS. The main heading TESTS may be subdivided, if desired, by the names of individual tests, e.g. TESTS - CALIFORNIA SHORT-FORM TEST OF MENTAL MATURITY; TESTS - CLARK-POTTER HUNDRED PROBLEM ARITHMETIC TEST

TEXTBOOK ASSIGNMENTS

TEXTBOOKS

SUBJECT HEADINGS

Three-dimensional pictures. See STEREOSCOPES AS VISUAL AIDS

Time of presentation, Effect of. See ORDER AND TIME OF PRESENTATION, EFFECTS OF

Touch, Sense of. See REALIA - TACTILE CHARACTERISTICS

Trade school students. See VOCATIONAL EDUCATION AND TRAINING

Transparencies. See FILMSTRIPS; SLIDES

TRAVELOGUES

Trips, Field. See NATURE HIKE AS EDUCATIONAL LOCALE
VISITS, EDUCATIONAL, AS EDUCATIONAL LOCALE

True-false tests. See TESTS - TRUE-FALSE

TYPING AS AN EDUCATIONAL ACTIVITY

U

Ultra high frequency television. See TELEVISION - U.H.F.

UNDERGRADUATE COLLEGE (4-year)

University audience. See FIFTH-YEAR BACHELORS DEGREE PROGRAMS
MASTERS DEGREE PROGRAMS
DOCTORAL DEGREE PROGRAMS
POST-DOCTORAL PROGRAMS
PROFESSIONAL-SCHOOL PROGRAMS

V

Verbal performance tests. See TESTS - VERBAL PERFORMANCE

Very high frequency television. See TELEVISION - V.H.F.

Video tape recordings. See TELEVISION - VIDEOTAPE RECORDINGS

Viewing conditions. See under EDUCATIONAL MEDIA PROGRAMS - PHYSICAL CONDITIONS

VISITS, EDUCATIONAL, AS EDUCATIONAL LOCALE

VISUAL COMPREHENSION

Vocal recognition. See MEMORY - RECOGNITION

VOCATIONAL EDUCATION AND TRAINING

Volume of sound. See under EDUCATIONAL MEDIA PROGRAMS - PHYSICAL CONDITIONS

W

WALL DISPLAYS

Wall models. See MODELS

Women as audience. See AUDIENCE - SEX CHARACTERISTICS

WRITING AS AN EDUCATIONAL ACTIVITY

APPENDICES

Appendix A - The Proposal of the Project

Appendix B - The Questionnaire

Appendix C - Analysis of the Questionnaire: Tabulations

Appendix D - Participants in Study

APPENDIX A

AN APPLICATION TO THE COMMISSIONER OF EDUCATION, U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE, FOR FUNDS TO SUPPORT A RESEARCH PROJECT UNDER THE PROVISIONS OF PUBLIC LAW 531, 2D SESSION, 83RD CONGRESS, SUBMITTED BY COLUMBIA UNIVERSITY, NEW YORK, NEW YORK, on MARCH 5, 1959

1. TITLE: Feasibility Study Regarding the Establishment of a New Educational Media Research Information Service.

2. STATEMENT OF THE PROBLEM AND ITS IMPORTANCE: With the development of new educational media as instructional devices on all levels of education, and with a growing expansion of experimentation and research in the application of these media to education, it has become increasingly important to provide effective control of studies being made and of their results. This project will examine present instruments which seek to index, abstract, summarize, and disseminate information on researches in new educational media.

   The project consists of three parts: (1) searching out all information concerning research in new educational media, in relation to other forms of educational research; (2) an assessment of the needs of researchers and practitioners in respect to research findings in the areas of new educational media, and (3) proposal of an appropriate system(s) for the gathering, storing, retrieving, and disseminating of the new media research information.

   The first part of the study will seek to isolate the variety of instruments which are now used to control information now being developed through studies of new media in educational situations. The "new media" include all devices which have been described as "audio-visual," with the exception of books, although these may be included under certain circumstances. The second part of the study has as its purpose the placing of such research within the proper framework of utility in so far as the needs of personnel in the field see them. The third part of the study will grow out of data assembled in the first two segments of the study.

3. OBJECTIVES:

   1. To isolate the controls now used for disseminating research information and to categorize these in their special forms: indexes, abstracts, periodical literature, monographic literature, compendia, etc.

   2. To review these forms in terms of the needs of researchers, and practitioners.

   3. To characterize present instruments in terms of needs.

   4. To propose a program for the control of research information on new media.

4. STUDY PLAN:

   1. In order to isolate the forms in which information on research on new media now exist, it will be necessary to study the sources in educational and other literature. The records and files in educational libraries and research units of educational institutions will be consulted.

2. The review of the forms and other sources of information will be done through conferences of researchers and specialists in new media. It is expected that a checklist or questionnaire will be distributed to a selected group of such individuals prior to a meeting or meetings held in Washington or other centers. In addition, it may be desirable to circularize a selected group of practitioners in order to determine how they obtain essential findings of research in their specific areas. How, for example, does the teacher of sixth grade geography in an elementary school learn of the results of a study concerning the teaching of a unit in geography through television, filmstrips, or other media?

3. On the basis of the data assembled in 1 and 2 above to assess the state of information service concerning research in the field. In this step, it will be necessary to classify and analyze on a subject basis the various areas of research, and how these may be related to an information system, library service, or other service.

4. It is expected that the three techniques discussed above will provide a basis for a specific proposal concerning an information service.

5. PERSONNEL

The study will be conducted by Professor Maruice F. Tauber, Melvil Dewey Professor of Library Service, Columbia University, assisted by Mr. Oliver L. Lilley, Associate in Library Service, Columbia University.

Professor Tauber has been at Columbia University since 1944. He was on the staffs of the libraries of Temple University, University of Chicago, and Columbia University (associate director). He received the Ph.D. degree from the Graduate Library School, University of Chicago, in 1941, and has a Master's degree in Education from Temple University (1939). He is a graduate of the School of Library Service, Columbia University (1934), and has a Bachelor's degree from Temple University (1930). He was a Carnegie Fellow at Chicago, 1938-39. He has as his major assignment at Columbia the field of the Technical Services, including the control of records in libraries. He is 51 years of age, and has been a surveyor of over 30 library situations.

Mr. Lilley, 50, is a graduate of Dartmouth College (1930), and holds Bachelor's and Master's degrees in library service from Columbia University (1936 and 1950, respectively). He has completed his work for the Doctorate in library service at Columbia. He was reference librarian at Dartmouth, and has been a member of the faculty at Columbia since 1950. He has been active in studies of bibliographical control and, specifically, in subject cataloging.

It is anticipated that educational and media consultants would be utilized in the study.

6. FACILITIES:

The facilities of Columbia University are available to the investigators.

APPENDIX B

QUESTIONNAIRE ON SOURCES OF INFORMATION ABOUT

RESEARCH DEALING WITH NEW EDUCATIONAL MEDIA

Identification of the study

Under the provisions of a contract (SAE-8328) between Columbia University, and the U.S. Department of Health, Education, and Welfare (HEW), Professors Maurice F. Tauber and Oliver L. Lilley of the School of Library Service of Columbia University, are attempting to design an information-finding service for research relating to the newer educational media (television, radio, moving pictures, slides, audio recordings, etc.)

Objectives of the study

The ultimate objective is to enable anyone interested in the research activities in this area to discover more readily than is now possible, what studies have been made, and what findings have resulted from these studies.

The more immediate objectives are:

1. To devise a classification, or subject-heading system that will permit the Educational Media Branch of HEW to organize its files of research reports in such a way that specific findings resulting from research into this aspect of educational activity, can be located promptly and effectivel
2. To propose any modifications of the information-finding instrument, developed by our study, that may be necessary to permit the establishment of either:
   a. A center for information about research in educational media; or
   b. A published indexing or abstracting service that will permit any subscriber to keep abreast of research activities in this area.

Purpose of this questionnaire

In order to have some assurance that the kind of bibliographical apparatus we may develop will meet the requirements of those, like you, who need to be informed about the existence of reports of educational-media research, or about the findings embodied in these reports, we must have some information concerning the ways in which you now attempt to meet these needs. Specifically, we will be assisted if we can have answers to these five questions:

1. What procedures or sources do you now employ to keep abreast of research findings relating to new educational media, and how satisfactory do you find them to be?
2. When you need to discover whether or not some particular aspect of the newer educational media has been subjected to investigation, what indexes, abstracting journals, or bibliographies, if any, do you now employ to identify reports about this kind of research?

3. In making literature searches such as those envisioned in Question 2, are you more likely to initiate your search from the point of view of:

   a. The medium involved in the investigation (moving pictures, radio); or

   b. The audience that formed the experimental group (seventh-grade students, industrial employees); or

   c. The subject matter represented in the communication process (geography, assembly of a machine gun); or

   d. The effect sought to be gained by the use of the medium (improvement of physical skills, influencing social attitudes)?

4. If it were possible to have one source (published journal, information center, etc.) to which you could turn for finding out about research in new educational media, in which of the following forms would you prefer to have the material presented:

   a. Complete texts of individual research reports;

   b. Informational summaries or reviews of the findings of several related studies;

   c. Critical (evaluative) summaries or reviews of related studies;

   d. Long abstracts of individual studies, reporting in detail the experimental apparatus, statistical methods and controls, and complete findings;

   e. Shorter abstracts of individual studies, reporting the nature of the study and the significant findings;

   f. Annotated bibliography.

   g. Unannotated bibliography.

5. As a result of your experiences, how would you evaluate the present situation, and what suggestions do you have for improving the sources of information relating to research in new educational media?

To assist you in organizing your replies to these questions, and to facilitate our task of tabulating the responses, we are providing on the following pages lists of possible answers you may want to make to some of these questions. Please feel free to use the backs of the sheets for additional answers, or for expanding or clarifying your replies.

Question 1: Which of the procedures and sources listed below do you now employ in order to keep abreast of research findings relating to new educational media?

Please indicate the comparative usefulness to you of those items you employ by placing a check mark in the appropriate column, according to the following rating scale:

RATING SCALE
Column 1 - Very useful
Column 2 - Useful
Column 3 - Relatively useless

* Starred items: When one of the items you check is preceded by an asterisk, we would appreciate it if you would use the back of the sheet (or a separate sheet, if you prefer), to explain, or to name an example.

A. Direct personal communication, in the form of	1	2	3
(1) Conversations with colleagues at work			
(2) Correspondence with colleagues, or research reports or reprints sent to you by them			
(3) Papers heard at meetings or conferences			
(4) Discussions with colleagues at meetings or conferences			
(5) Information gained from attending workshops			
(6) Information supplied by your instructor in academic courses, or by your instructor or classmates at seminars			
* (7) Memoranda or reports sent to you by supervisors at your institution			
* (8) Material sent to you by your librarian			
(9) Book announcements or review copies sent to you by publishers			
*(10) Data or announcements sent to you by equipment and supply firms			
*(11) Information provided at special sessions set up by manufacturers' representatives			
*(12) Other forms of direct personal communication			

Question 1 is continued on page 4.

Question 1 (continued)

	1	2	3
B. Reading the complete, original texts of dissertations, theses, or other research reports, which may be:			
(13) Issued as separate monographs (printed, mimeographed, etc.)			
(14) Printed in serial publications (journals, report series, etc.) of the U.S. Office of Education			
*(15) Printed in serial publications (journals, report series, etc.) of other governmental agencies			
(16) Printed in serial publications of the National Education Association			
*(17) Printed in serial publications of other educational associations			
*(18) Printed in serial publications of educational institutions			
*(19) Printed in other journals of education			
*(20) Printed in journals of psychology			
*(21) Printed in journals of audio-visual communication			
*(22) Printed in other journals			
*(23) Printed in yearbooks of professional societies			
*(24) Other publications which print the full text of research reports relating to new educational media			
C. Reading the summaries or reviews of research, which may appear in:			
*(25) Treatises (including textbooks), and handbooks			
(26) Encyclopedia of Educational Research			
(27) Publications of the U.S. Office of Education			
*(28) Publications of other governmental agencies			
(29) Publications of the National Education Association			
*(30) Publications of other educational associations			
*(31) Publications of educational institutions			
*(32) Other journals of education			
*(33) Journals of psychology			
*(34) Journals of audio-visual communication			
*(35) Other journals			
*(36) Yearbooks of professional societies			
*(37) Newspaper articles			
*(38) Separately printed (or mimeographed) project reports			
*(39) Other sources which provide summaries or reviews of research relating to new educational media			
*(40) Other procedures or sources you employ to keep abreast of research findings in this area			

Question 1 is continued on page 5.

Question 1 (continued)

D. Among the printed sources listed above (or others) that you use to keep abreast of research findings relating to new educational media, which are your favorites, and what features do they possess that make them particularly useful to you? Among those you find less useful, are there particular characteristics that materially detract from their value to you? If insufficient space is provided here for your answer, you may use the back of this sheet, or a separate sheet.

(41): ______________________

Question 2: When you need to discover whether or not some particular aspect of the newer educational media has been subjected to investigation, which of the following indexes, abstracting journals, or bibliographies, if any, do you now employ to identify reports about this kind of research?

Please indicate the comparative usefulness to you of those items you employ, by placing a check mark in the appropriate column, according to the following rating scale:

RATING SCALE

Column 1 - Very useful
Column 2 - Useful
Column 3 - Relatively useless

*Starred items.--When one of the items you check is preceded by an asterisk, we would appreciate it if you would use the back of the sheet (or a separate sheet, if you prefer), to explain, or to name examples.

	1	2	3
A. Consultation of periodical indexes			
(42) Education Index			
(43) Applied Science and Technology Index			
(44) Business Periodicals Index			
(45) International Index			
(46) Public Affairs Information Service (PAIS)			
(47) Readers' Guide to Periodical Literature			
*(48) Other periodical indexes you have used for this purpose ______			
B. Consultation of abstracting journals			
(49) Psychological Abstracts			
(50) Social Science Abstracts			
(51) Sociological Abstracts			
*(52) Other abstracting journals you have used for this purpose ______			

Question 2 is continued on page 6.

Question 2 (continued)

	1	2	3
C. Consultation of bibliographies of government publications			
(53) Monthly Checklist of State Publications			
(54) U.S. Government Publications: Monthly Catalog			
(55) U.S. Government Research Reports			
*(56) Other bibliographies or indexes of government publications you have used for this purpose ____			
D. Consultation of lists of dissertations			
(57) Index to American Doctoral Dissertations			
(58) Doctor's Dissertations Under Way in Education			
(59) Research Studies in Education			
(60) "Doctoral Dissertations in Audio-Visual Education," by John Moldstad (In Audio-Visual Communications Review, Fall 1956, and Winter 1958)			
*(61) Other lists of dissertations you have used for this purpose ____			
E. Consultation of subject bibliographies			
(62) In Allen, W.H. Audio-Visual Communication Research			
(63) In Audio-Visual Communication Review			
(64) In Hoban, C.F. and van Ormer, E.B. Instructional Film Research, 1918-1950			
(65) In Kumata, H. An Inventory of Instructional Television Research			
(66) Larson, L.C. and Runden, C.E. Bibliography of Research in Audio-Visual Education and Mass Media, 1930-1950			
(67) McClusky, F.D. The A-V Bibliography			
*(68) Other subject bibliographies you have used for this purpose ____			

I have been unable to check any of the above items because:

(69) ____ I have no need to seek this kind of information.

(70) ____ When I need this kind of information I ask someone else to search for it. The people I am likely to ask are:

- ____ my colleagues
- ____ my superiors
- ____ my assistants
- ____ my librarian
- ____ the National Education Association
- ____ the Department of Health, Education and Welfare
- *____ other ____

*(71) ____ Other reasons. ____

Question 3: When making literature searches such as those envisioned in Question 2, are you more likely to initiate your search from the point of view of:

(72) ____ The medium involved in the investigation (e.g. "What research has been done on the applications of television to classroom teaching?"); or

(73) ____ The audience that formed the experimental group (e.g. "What research has been done on the effectiveness of teaching college freshmen by the use of new educational media?"); or

(74) ____ The subject matter represented in the communication process (e.g. "What research has been done on the use of new educational media for the teaching of English literature?"); or

(75) ____ The effect sought to be gained by the use of the medium (e.g. "What research has been done on the effectiveness of new educational media in influencing social attitudes?")

I have been unable to check any of the above items because:

(76) ____ I do not make searches of this kind.

(77) ____ My requirements vary, so that at one time or another, any one of these four is likely to represent the major focus of my interest.

(78) ____ Other reasons (Please use the back of this sheet, or a separate sheet, to explain).

Question 4: If it were possible to have one source (a published journal, or an information center) to which you could turn for finding out about research in new educational media, in which of the following forms would you prefer to have the material presented? If no one of these forms always meets your needs, please rank your answers by using numerals instead of check marks. Place a "1" in front of the form that is most often needed by you; a "2" in front of the next most useful form, and so on.

(79) ____ Complete texts of individual research reports;

(80) ____ Informational summaries or reviews of the findings of several related studies;

(81) ____ Critical (evaluative) summaries or reviews of related studies;

(82) ____ Long abstracts of individual studies, reporting in detail the experimental conditions, statistical methods and controls, and complete findings;

(83) ____ Shorter abstracts of individual studies, reporting the nature of the study, and the significant findings;

(84) ____ Annotated bibliography;

(85) ____ Un-annotated bibliography;

(86) ____ Other (Please explain on the back of this sheet, or on a separate sheet).

Question 5: As a result of your experiences, how would you evaluate the present situation, and what suggestions do you have for improving the sources of information relating to research in new educational media?

A. **Evaluation of the present situation**

What is your estimate of the effectiveness with which the results of research in new educational media are NOW communicated to the field as a whole:

(87) Do you think that the **thoroughness** with which the available indexes, abstracting journals, bibliographies, etc. provide references to all important studies can best be described as:
Excellent____; Good____; Fair____; Poor____?

(88) Do you think that the **promptness** with which the existence of all important studies is made known soon after the research is completed can best be described as:
Excellent____; Good____; Fair____; Poor____?

(89) Do you find that the existing sources which review, abstract, or annotate research reports inform you sufficiently well about the **substance** of the findings, so that you rarely need to consult the original reports:

Articles which review or summarize research: Yes____; No____.

Abstracting journals: Yes____; No____.

Annotated bibliographies: Yes____; No____.

(90) Do you think that the effectiveness with which the subject headings or classification systems, employed in existing indexes, abstracting journals, etc., permit the ready identification of studies that have dealt with specific topics within the field, can best be described as: Excellent____; Good____; Fair____; Poor____?

B. **Suggestions or recommendations for the future**

Please be as explicit as possible. If you can give an illustration from your own experience to show how some improvement of service would have helped you, please do so. Use the back of this sheet, or separate sheets, if the space provided here is inadequate for your answer.

Please return questionnaire in
enclosed, stamped envelope to:

Prof. Oliver L. Lilley
School of Library Service
Columbia University
New York 27, New York

Name____________________

Position____________________

Subject(s) specialty____________________

Institution____________________

APPENDIX C

Questionnaire on Sources of Information about Research Dealing With New Educational Media

1--Very useful; 2--useful; 3--relatively useless; NC--not checked

QUESTION	1	2	3	NC	COMMENTS
1A. Direct personal communication:					
1. Conversations with colleagues at work	31	37	11	6	
2. Correspondence with colleagues, or research reports or reprints sent to you by them	38	31	6	10	C1-encircled "research reports" & said "almost the most useful of all"; "a few"; NC-"not used at all
3. Papers heard at meetings or conferences	16	54	10	5	
4. Discussions with colleagues at meetings or conferences	32	40	6	7	C2-R added "and professional seminars"
5. Information gained from attending workshops	11	24	27	23	NC--"don't use"; "not applicable", "not used at all"; "does not apply".
6. Information supplied by your instructor in academic courses or by your instructor or classmates at seminars	4	13	14	54	C3-"inappropriate"; NC--"not applicable ", "not Appropriate" "does not apply"; "not applicable"; "not Applicable"; "not used at all"; "don't know"; "doesn't seem to apply; "does not apply"; "does not apply"; "does not apply"; "does not apply";"none".
7. Memoranda or reports sent to you by supervisors at your institution	8	12	27	38	C2--"only occasionally"; C3--"does not send any"; NC--"seldom"; "not appropriate"; "not used at all"; "none"; "does not apply"; "receive none".
8. Material sent to you by your librarian	9	15	27	34	C1--"usually new items"; NC--"never unless asked to find something";"not applicable"; "not used at all";"don't receive any"; "none".
9. Book announcements or review copies sent to you by publishers	12	31	23	19	C2--"moderately"; "don't always have time to read fully"; NC--"not used at all".
10. Data or announcements sent to you by equipment and supply firms	5	23	33	24	C2--"moderately"; "varies a great deal"; NC--"not applicable"; "not used at all".
11. Information provided at special sessions set up by manufacturers' representatives	3	10	39	33	NC--"not applicable"; "not applicable"; "not used at all".

QUESTION	1	2	3	NC	COMMENTS
12. Other forms of direct personal communication	9	7	10	59	NC--"not used at all"; "covere above"; "?"; "?".
1B. Reading the complete, original texts of dissertations, theses, or other research reports, which may be:					
13. Issued as separate monographs	38	22	6	19	NC--"not used at all".
14. Printed in serial publications of the USOE	15	24	19	27	NC--"not serial form!!!!; "haven't used"; "not used at al
15. Printed in serial publications of other governmental agencies	11	17	20	37	C3--"access to these often poor NC--"not serial form, unless necessary"; "haven't used"; "not used at all".
16. Printed in serial publications of the NEA	21	20	16	28	NC--"occasionally"; "don't use" "haven't used".
17. Printed in serial publications of other educational associations	7	28	15	35	NC--"don't use"; "not used at all"; "none consulted"; "haven't used".
18. Printed in serial publications of educational institutions	12	15	19	39	NC--"do not receive"; "not use at all"; "don't use".
19. Printed in other journals of education	13	25	10	37	NC--"do not receive"; "don't use".
20. Printed in journals of psychology	22	21	10	32	NC--"do not receive"; "not used at all"; "don't use".
21. Printed in journals of audio-visual communication	40	10	7	28	NC--"do not receive"; "not used at all".
22. Printed in other journals	13	23	16	33	C2--"at times"; NC--"not used at all"; Sociologist, doesn't read other Journals.
23. Printed in yearbooks of professional societies	9	16	23	37	C1--"once"; NC--"not used at all"; Sociologist, doesn't read other Journals.
24. Other publications which print the full text of research reports relating to new educational media	8	11	15	51	NC--"none consulted"; Sociologist, doesn't read other Journals.
1C. Reading the summaries or reviews of research which may appear in:					
25. Treatises (including Textbooks), and handbooks	11	25	11	38	C2--"moderately"; "apt to come out to late"; C3--"useless;" NC--"not used at all;" Sociologist, etc.
26. Encyclopedia of Educational Research	19	21	12	33	C2--"moderately"; "occasionally"; "but out-dated"; C3--"apt to come out too late"; NC--"not used at all"; Sociologist, etc.; "not available"; "don't use".
27. Publications of the USOE	9	36	15	25	C2--"moderately"; C3--"apt to come out too late"; NC--Sociologist, etc.; "not used at all".

QUESTION	1	2	3	NC	COMMENTS
28. Publications of other governmental agencies	7	17	22	39	C2--"occasionally"; NC--"not used at all"; Sociologist, etc. "?".
29. Publications of the NEA	20	33	10	22	NC--"not used at all"; Sociologist, etc.; "not available"; "don't use".
30. Publications of other educational associations	8	25	15	37	NC--"not used at all"; Sociologist, etc.; "do not receive"; "?"; "don't use".
31. Publications of educational institutions	13	21	14	37	NC--"not used at all"; Sociologist, etc.; "?".
32. Other journals of education	3	32	13	37	NC--Sociologist, etc.; "do not receive"; "?".
33. Journals of psychology	15	27	10	33	NC--"not used at all"; Sociologist; "do not receive"; "?"; "don't use".
34. Journals of audio-visual communication	40	14	5	26	NC--"not used at all"; Sociologist; "do not receive"; "?"; "don't use".
35. Other journals	14	16	13	42	NC--"not used at all"; Sociologist; "?"; "don't use".
36. Yearbooks of professional societies	12	14	22	37	NC--"not used at all"; Sociologist; "?"; "don't see".
37. Newspaper articles	10	17	29	29	C3--"as leads--due to lack by others"; NC--"not used at all"; Sociologist.
38. Separately printed (or mimeographed)project reports	32	19	6	28	NC--"not used at all"; Sociologist.
39. Other sources which provide summaries or reviews of research relating to new educational media	10	13	13	49	NC--"not used at all"; Sociologist; "?"; "?".
40. Other procedures or sources you employ to keep abreast of research findings in this area	8	6	8	63	NC--"not used at all"; Sociologist; "?"; "?".
41. Textual responses included elsewhere in the report.					
2A. Consultation of periodical indexes:					
42. Education Index	27	22	6	30	
43. Applied Science and Technology Index	2	8	25	50	C3--"haven't used them"; NC--"don't use".
44. Business Periodicals Index	1	6	26	52	C3--"haven't used them"; NC--"don't use".
45. International Index	4	8	22	51	C3--"haven't used them"; NC--"don't use".
46. Public Affairs Information Service (PAIS)	1	10	22	52	C3--"haven't used them"; NC--don't use"; "? have not used them".

QUESTION	1	2	3	NC	COMMENTS
47. Readers' Guide to Periodical Literature	21	22	9	33	
48. Other periodical indexes you have used for this purpose	4	4	8	68	
2B. Consultation of abstracting journals:					
49. Psychological Abstracts	28	17	6	34	C2--"few"; NC--"?".
50. Social Science Abstracts	4	15	18	48	NC--"don't use"; "?".
51. Sociological Abstracts	8	13	19	45	C2--R also checked C3 (not recorded); C3--"haven't used it" NC--"?"; "don't use".
52. Other abstracting journals you have used for this purpose	9	2	9	65	NC--"?".
2C. Consultation of bibliographies of government publications:					
53. Monthly Checklist of State publications	1	7	24	53	C3--"don't get them"; NC--don't use except occasionally".
54. US Government Publications: Monthly Catalog	2	11	21	51	C3--"don't get them"; "have never seen these"; NC--"don't use except occasionally".
55. US Government Research Reports	4	11	22	48	C3--"don't get them"; "have never seen these"; NC--"don't use except occasionally"; "don' use".
56. Other bibliographies or indexes of government publications you have used for this purpose	3	4	10	68	C3--"never see"; NC--"none"; "don't use except occasionally'
2D. Consultation of lists of dissertations:					
57. Index to American Doctoral Dissertations	11	22	10	42	C3--"haven't used them".
58. Doctor's Dissertations Under Way in Education	4	19	14	48	NC--"don't use".
59. Research Studies in Education	9	17	15	44	C3--"haven't used them"; NC--"don't use".
60. "Doctoral Dissertations in Audio-Visual Education," by John Moldstad (In AVCR, Fall '56, Winter '58)	20	20	5	40	C2--"not complete"; C3--"never seen this"; NC--"don't use"; "?".
61. Other lists of Dissertations you have used for this purpose	4	2	4	75	NC--"none"; "none".
2E. Consultation of subject bibliographies:					
62. In Allen, W.H. AVC Research	21	19	5	40	C2--"Excellent for background; not for keeping up with curren' research"; NC--"don't use"; "?", "?".

QUESTION	1	2	3	NC	COMMENTS
63. In AVCR	31	19	5	30	C2--"Excellent for background, etc."; NC--"don't use".
64. In Hoban and van Ormer, Instructional Film Research,1918-1950	26	13	7	39	C1--"Best"; C2--"Excellent for background, etc."; C3 --"comes to very little"; NC--"don't use "".
65. In Kumata, An Inventory of Instructional TV Research	38	15	2	30	C1--R. checked C2 also (not recorded); "but now out of date "Excellent"; C2--"Excellent for background, etc."; NC--"don't use"; "don't know".
66. Larson and Runden, Bibliography of Research in AV Education and Mass Media, 1930-1950	9	24	8	44	C2--"poorly organized"; "excellent for background, etc."; NC-"?"; "don't use";"don't know".
67. McClusky, The AV Bibliography	5	23	9	48	C2--"Excellent for background, etc."; "going out of date"; NC-"don't know"; "don't use".
58. Other subject bibliographies you have used for this purpose	3	4	4	74	

I have been unable to check any of the above items because:

Checked Not Checked

69. 9 76 I have no need to seek this kind of information.

R. changed "no" to "little"; "I have the advice and assistance of our superintendent and principals"; R. changed "no" to "little".

70. 31 54 When I need this kind of information I ask someone else to search for it. The people I am likely to ask are:

14 my colleagues
1 my superiors
12 my assistants
15 my librarian
2 NEA
4 HEW
7 Other

R.= Respondent.

R. changed "any of the above" to "many" of the above items and checked "assistants";
R. inserted "often" ask and checked 70.
R. inserted "often" ask and checked 70.
R. inserted "also" ask and checked 70.
R. crossed out "someone else to search for it" and checked "HEW";
R. checked 70 and inserted "better" between "items" and "because", and checked "my colleagues" and also "my librarian".
R. checked "my colleagues" and added "who are assigned to this particular phase of research".
R. inserted "usually" ask and checked "my assistants".

R. checked "my librarian" and added "In addition to above (Q. 53-68) we have services of a specialized librarian."
R. checked "other" and said "pertinent departments in the University."
R. checked "other" and said "Nat'l Ed'l TV & Radio Center".
R. checked "other" and said "I ask people whom I have identified and whose judgment I trust to make a few suggestions. This leads me to other individuals."
R. checked "other" and said "friends."
R. checked "other" and said "and research personnel".
R. checked "other" and said "graduate students".
R. checked "other" and said "Indiana University".

I have been unable to check any of the above items because:

	Checked	Not Checked	
71.	8	77	other reasons.

R. checked; "Generally ask key people."
R. checked; "Lack of any regularized source of information on teaching machines and self-instructional programs."
R. checked; "Attempts have been periodic, rather than continuing."
R. checked; "Get at it only through research courses in university."
R. checked; "this is only a peripheral interest of mine".
R. checked; "wasn't aware of its existence."
R. checked; "I am totally unacquainted with many of the specific publications listed above and have indicated these with '?' ."

3. When making literature searches such as those envisioned in Question 2, are you more likely to *initiate* your search from the point of view of:

	Checked	Not Checked	1	2	3	4	Other
72. medium	33	42	4	3	1	1	Yes*
73. audience	12	65			4	3	Yes*
74. subject matter	18	59	3	3	1		Perhaps*
75. effect	28	49	2	3	2		Yes*

R. did not check any of 72-75 and said "all equally".
R. checked 72 only; "72 only available' 75 superior."
R. did not check any of 72-75 and said "all equally important to me".
R. checked only 75 and said "*all* at one time or another, but 75 more than the rest".
R. checked 72 and also 75 which he designated with "next".
R. checked 72 and said "sometimes".
R. checked 75 and added "and 77".
R. rated 72 & 73, 4 & 3 respectively and added "about Even".
R. checked 72-75 and added "all".
R. did not check any of these and said, "none of these. What is needed is research on the nature of the instructional process in each of the new media. This is very scarce."
R. checked 72-75 and added "all of these but most likely 72 and 75".
R. did not check any and added, "our interests are not usually the educational, but we are deeply concerned with problems of medium, audience, subject matter, and effect...all four".

* Same respondent.

3. I have been unable to check any of the above items because:

	Checked	Not Checked	
76.	5	80	I do not make searches of this kind.
77.	27	58	My requirements vary, so that at one time or another, any one of these four is likely to represent the major focus of my interest.
78.	3	82	Other reasons.

R. did not check 77 but added to it "True, but usually 72".
R. checked 77 and said "Interest is in variables and methods in instructional media, not necessarily peculiar to any one medium".
R. checked 78, said "Lack of any regularized source of information on teaching machines and self-instructional programs".
R. checked 78, said "all are of interest in some degree".
R. checked 77, said "No. 77 is also true to an extent, but 74 would be the most usual procedure."
R. checked 77, said "this too" (he had checked 72).
R. checked 77, said "yes".
R. checked 78, said "What is needed is research on the nature of the instructional process in each of the new media. This is very scarce."
R. checked 77, said "This is naturally quite true."
R. checked 77, crossed out the work "four", put in "three" (had checked 72-74).
R. checked 76, said "at present".

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4. If it were possible to have one source (a published journal, or an information center) to which you could turn for finding out about research in new educational media, in which of the following forms would you prefer to have the material presented: If no one meets your needs, please rank by numerals.

	Checked	Not Checked	1	2	3	4	5	6	7	Other
79. Complete texts of individual research reports;	1	56	13	2	1	4	4	2	2	--
80. Informational-summaries or reviews of the findings of several related studies;	6	35	8	13	10	6	6	1	-	--
81. Critical (evaluative) summaries or reviews of related studies;	5	34	12	17	9	2	4	-	-	yes
82. Long abstracts or individual studies, reporting in detail the experimental conditions, statistical methods & controls, & complete findings;	4	45	5	12	8	8	1	1	1	--
83. Shorter abstracts of individual studies, reporting the nature of the study, and the significant findings;	7	29	21	11	8	4	3	1	1	--
84. Annotated bibliography;	8	36	6	7	11	6	2	8	-	no

	Checked	Not Checked	1	2	3	4	5	6	7	Other
85. Un-annotated bibliography;	0	66	-	2	-	-	1	3	12	no
86. Other.	3	82								

R. numbered in the following manner: 79-1, 80-2, 81-1, 82-2, 83-3, 84-2, 85-2.
R. numbered 82-1, 81-2, and said, "Both are needed. Would want to know whose critical analysis I was reading."
R. numbered 82-2, 83-1, 84-3, and said, "Well-indexed."
R. numbered 83-1, said "if regularly available."
R. numbered 81-1 and 82-2, and said "combined."
R. numbered in the following manner: 79-1, 80-2, 81-1, 82-1, 83-2, 84-1, 85-2.
R. checked 82 and 83 and said "if practical."
R. checked 86 (other) and said, "IBM cards."
R. did not check anything and added, "This depends on purpose of search. In each case, one or more of these might be useful."
R. checked 86 (other) and said, "Theoretical clarification of the problems on which research should be performed."
R. numbered 79-1, 80-4, 81-5, 82-7, 83-2, 84-3, 85-6 and said, "I would prefer complete texts and short abstracts, I would use summaries and bibliographies for checking purposes only, I would prefer to make my own critical judgments."
R. checked 83 only and said, "Depends on significance of study."

5A. What is your estimate of the effectiveness with which the results of research in new educational media are NOW communicated to the field as a whole.

	Excellent	Good	Fair	Poor	Not Checked
87. Do you think that the thoroughness with which the available indexes, abstracting journals, bibliographies, etc. provide references to all important studies can best be described as:	2	26	32	12	13

R. checked "good" and said, "If we assume a person knows these sources and has access to them."
R. checked "good" and said, "But widely scattered."
R. did not check and said, "Insufficient information."
R. did not check and said, "I do not feel qualified to judge this."

	Excellent	Good	Fair	Poor	Not Checked
88. Do you think that the promptness with which the existence of all important studies is made known soon after the research is completed can best be described as:	2	11	35	24	13

R. checked "excellent" and said, "Here for professional Journal publications; for especially published reports."
R. checked "fair" and said, "Depends on who you know".
R. checked "poor" and said, "Perhaps a function of my neglect".
R. did not check and said, "Insufficient information."
R. did not check and said, "I do not feel qualified to judge this."

89. Do you find that the existing sources which review, abstract, or annotate research reports inform you sufficiently well about the __substance__ of the findings so that you rarely need to consult the original reports:

	Yes	No	Not Checke
Articles which review or summarize: (a)	32	33	20
Abstracting journals: (b)	24	31	30
Annotated bibliographies: (c)	10	46	29

R. did not check but notated as follows: (a)-some, (b)-some, (c)-few.
R. did not check (c) and added, "?".
R. did not check any but added, "Insufficient information".
R. did not check any but added, "Can't yes-no this one--I have a different view of each."
R. did not check any but added, "Depends on purpose."
R. did not check (a) or (c) and added, "Not applicable."
R. did not check any and added, "I am inadequately informed to respond here."
R. did not check (b) and added, "?".
R. did not check any and added, "I do not feel qualified to judge this."
R. did not check (a) or (b) and checked 'no' for (c); he underlined "__rarely need to__ consult the original reports," and added for (b) which was not checked, "some do, some don't."
R. checked __yes__ and __no__ for (a) and wrote "depends"...I recorded "yes" only.
R. checked __yes__ and __no__ for (b)...I recorded "yes" only.
R. checked "yes" for (b) and added, "sometimes".
R. checked "no" for all and added, "I always like to consult the original report if possible."
R. checked "no" for all and added, "Usually I want to see it anyhow."

	Excellent	Good	Fair	Poor	Not Checked
90. Do you think that the __effectiveness__ with which the subject headings or classification systems, employed in existing indexes, abstracting journals, etc., permit the ready identification of studies that have dealt with specific topics within the field, can best be described as:	1	17	38	11	18

R. checked "poor" and said, "Except for the notable exception of Hoban & Van Ormer."
R. checked "poor" and said, "!!!"
R. did not check and said, "Insufficient information."
R. did not check and said, "I do not feel qualified to judge this."

APPENDIX D

PARTICIPANTS IN THE STUDY

A summary of the comments made by the respondents to the questionnaire was presented in Section III of this report. As noted earlier, 179 forms were distributed. Although 106 were returned, the tabulations were based primarily on only 85 returns. It was possible to use material from eight others at appropriate sections of the summary, but the remaining 13 were not usable, either because of incomplete responses, or delayed return.

The 73 people who failed to return the questionnaire cannot be categorized easily, for in general our records show that they are representative of the same kinds of activities as are those who submitted replies. An appreciable number of these 73 replied with letters, explaining that they are no longer closely enough associated with educational media research to be able to supply meaningful answers. The one activity group that was overrepresented among the non-respondents (accounting for slightly less than half of this group), was the group engaged in various administrative or teaching aspects of elementary education.

The failure to obtain complete response was not unexpected, nor is it regarded by the consultants as especially serious. Several devices were employed in this study to explore the present conditions of bibliographical identification. The fact that the returns from the questionnaire correlated with the information acquired by other means suggests that the sampling was large enough to provide a satisfactory picture of the procedures and opinions of the individuals chiefly concerned with research in educational media. The names of those who assisted in various ways in this study appear on the following pages.

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